

LEIBNIZ DISCOVERS ASIA

SOCIAL NETWORKING *in the* REPUBLIC *of* LETTERS

MICHAEL C. CARHART

VISIT…



Leibniz Discovers Asia

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INFORMATION CULTURES

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OCEANVS SEPTENTRIONALIS.
PETER ALEXEWIT
MARE TARTARICUM
Olim
Mare Caspium
SAMOIED
SIBERIA
KIRGI
CONDORIE
IGORIA
MOSCOVIA
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KAMAKI
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Kontaicini orda.
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Kochlivskoi
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DE BACHUS:
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GUALINSKOY MORE.
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ASIA en EUROPA
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MUGALIA FLAVIA Sive
MAGNA
T' LANTSCHAP SINGAL
alle ZOENGOGO
REGNUM LABINSKOY
KATHAY
TIBET
PECHELI.
LEAOTUNG
XENSI.
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Leibniz Discovers Asia

Social Networking in the Republic of Letters

MICHAEL C. CARHART



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To Donald R. Kelley

Nature takes the place of History.

Protogaea (1694)

Since the remote origins of nations are deeper than History,
languages take the place of ancient monuments.

"Brevis designatio" (1710)

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Nicolaas Witsen, Nieuwe Lantkaarte van het Noorder en Ooster deel van Asia en Europa (New Map of the North and East Part of Europe and Asia, 1687). Gottfried Wilhelm Leibniz Bibliothek—Niedersächsische Landesbibliothek, Hanover, Ktr. 118. iv

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Dates

Most dates are given in both Old Style (Julian) and New Style (Gregorian). In the 1690s the discrepancy was ten days. Where only one date is given, it is New Style.

Letter Numbers

The format for numbering letters is thus:

A.I.7, #347, Leibniz to Kochanski, [Wolfenbüttel?], 11/21 March 1692, 613

A: Berlin-Brandenburgische Akademie der Wissenschaften critical edition of Gottfried Wilhelm Leibniz, *Sämtliche Schriften und Briefe* (1923–).

I: Reihe I, *Allgemeiner politischer und historischer Briefwechsel*. The vast majority of letters discussed here are from Reihe I. Other series employed are Reihe II, *Philosophischer Briefwechsel*; Reihe III, *Mathematischer, naturwissenschaftlicher und technischer Briefwechsel*; and Reihe IV, *Politische Schriften*.

7: Volume in the indicated series.

#347: Letter number. I found the letter number much easier to use than volume and page number, which are employed in most recent Leibniz scholarship.

Leibniz to Kochanski: Self-explanatory.

[Wolfenbüttel?]: Brackets indicate that the place of writing is inferred by the Berlin Academy editors. In all cases I have followed the Academy editors' datelines and dates, including the question mark in this example. Quibbles (very few) are discussed in the notes. Common place names like Hanover and Vienna are rendered in English; I have left less common names in the form known in the seventeenth century (e.g., Braunschweig, not Brunswick).

11/21 March 1692: Old Style (Leibniz's date in Protestant Germany) and New Style (Kochanski's date in Catholic Poland).

613: Since I indicate the number of the letter, most letters of only two or three pages do not require page numbers; however, for longer or more complex letters, the offered page numbers will direct the reader more precisely.

Factual Errors

The reader will find historical errors in Leibniz's letters (e.g., the trans-Caspian Cimmerians equated with the Jutland Cimbri and placed along the Rhine River). Because my purpose is to show what Leibniz knew, when he knew it, and the source of his knowledge, I have made no attempt to correct these errors.

Variant Spellings

In the analytical narrative, the names of Asiatic nations have been regularized (*Kalmyk*, *Uzbek*, *Mongol*, etc.). However, in order to preserve the precision and ambiguity of the sources, in translated quotations the original spellings have usually been retained (*Calmouc*, *Kalmuck*), although occasionally the spelling has been regularized when the original was too far from modern English (e.g., *Usbeccensium* rendered as *Uzbekia* [not *Uzbekistan*, the name of the modern political state], *Moalles* or *Mogalles* as *Mongol*).

Translations

Wooden. I have rendered translated passages as literally as possible, even when ambiguous, because the meaning of many of the letters is ambiguous. I have striven to remain faithful to the sources, even when they are messy, and not to put a face (or a facade) of completeness on very incomplete inquiries. All translations are my own unless otherwise indicated, and even these I have read against the French or Latin original.

Leibniz Discovers Asia

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Grimaldi at the Gates of Muscovy

(Fall 1689)

In the fall of 1689 a Chinese ambassador stood at Kadino, the last town in Poland before one reached the Grand Duchy of Moscow. A small brook marked the border. In a letter to the governor of Smolensk the ambassador requested a visa to Moscow, where he would deliver letters from the emperor of China before traveling overland through Siberia back home to Beijing. A class-three mandarin, president of the Chinese Directorate of Astronomy, the ambassador was not a native of China at all but Italian. He was Claudio Filippo Grimaldi, a 51-year-old Jesuit from a prominent family of Genoa. Grimaldi was on his way back to Beijing, where he would direct the Jesuit mission in China during some of its most productive years. As one of the Kangxi emperor's most trusted advisers, as well as knowledgeable in European languages, Grimaldi had been deputized to convey a message to Moscow protesting border incursions by armed bands of Cossack and Siberian fur trappers into the Qing dynasty's homeland of Manchuria. As procurator of the Jesuit vice-province of China (subordinate to the dormant province of Japan, closed since 1654), Grimaldi had also been deputized to represent his colleagues in China before the Jesuit superior general and the papal court at Rome. Lacking an overland route through central Asia, Grimaldi had reached Rome by sea, traveling from Beijing to Macao and from there taking a series of Portuguese ships to India, around Africa, and to the Mediterranean Sea. Now, three years later, he approached Muscovy not from the disputed border in the Far East but from Europe in the west.[1]

So there he stood in 1689, petitioning for a Muscovite visa, supported by recommendation letters not only from the emperor of China but from heads of European states too—the king of Poland and the Holy Roman emperor, both recently confirmed allies of Czars Ivan and Peter in the ongoing war against the Ottoman Empire. From the court of the czars at Moscow, the visa application was returned relatively quickly: access denied. Under no circumstances

was Grimaldi to enter Muscovy. Indeed, the boyars at the court must have been outraged that Grimaldi had the audacity even to request a visa to enter Muscovy, let alone one to travel through Siberia to China.

Rebuffed, Grimaldi was forced to find another route to China. He retreated the way he had come, via Warsaw to Vienna and then Venice. From there he went to Genoa, and from Genoa to Marseilles, where he caught a French merchant ship to Smyrna. At Constantinople he took command of an entourage of eight Jesuit fathers, who traveled through Ottoman territories to Armenia, then to the Persian capital at Isfahan. By now it was 1692. In 1693 he was at Goa, on the west coast of India, where he waited a year for the monsoons to change and a Portuguese ship to take him to Macao. He reached Canton in 1694 and finally took up his post as director of the Jesuit mission at Beijing in 1695, concluding eight years of Eurasian travel.

Leibniz and Grimaldi

Only weeks before Grimaldi departed on his return journey to Beijing in 1689, Gottfried Wilhelm Leibniz, the German polymath and man of letters, chanced to meet him in Rome. Leibniz spent a year in Italy—March 1689 to March 1690—searching for documentary evidence that would link the German House of Guelf with the Italian House of Este. In addition to combing archives and crypts for medieval documentary evidence for the genealogy of the ruling dynasty of Hanover, Leibniz announced himself to antiquarians and mathematicians in every Italian city that he visited. In this way he entered the Jesuit world of learning, including meeting the chief mathematician of China, who happened to be in Rome as an envoy of China.

In July 1689, Leibniz and Grimaldi met personally on two or three occasions. According to notes Leibniz made following one of the meetings, Leibniz kept drawing the conversation to mathematics, Chinese technology, and Chinese practices that he hoped the Jesuits would send to Europe. Grimaldi, on the other hand, kept talking about language. Leibniz had enough interest in language to write some of it down. For example, Grimaldi explained that the Tartaric peoples north of China could be classified into two sets, Occidental and Oriental, also known as Mongol and Manchu. Ultimately they were all Tartars, but on the basis of spoken language and writing, at some point in their history the Tartaric nation had divided into two tribes. Leibniz made a note of this, but in 1689 he had not yet hit upon his project of the origins and migrations of nations.

Perceiving Global Humankind

The ongoing publication of the Berlin-Brandenburg Academy of Science's critical edition of Leibniz's complete writings and letters enables us for the first time to see the extent of Leibniz's network of correspondents on the topic of the history of language. Begun in 1923, the Akademie Ausgabe is now up to about the year 1707. There are hundreds of letters from the 1690s seeking linguistic information from scholars across Europe and Asia—London, Stockholm, Amsterdam, Paris, Rome, Florence, Venice, Vienna, Warsaw, Moscow, and Beijing. Why was Leibniz, who was famous for mathematics, metaphysics, law, and theology, plus his life's work on the history of the House of Guelf, dabbling in comparative linguistics?

Leibniz's principal assignment at the Hanoverian court was to write a history of the noble house that ruled Lower Saxony in Protestant northern Germany. The purpose of the history of that noble family was to elevate the dukes of Braunschweig-Lüneburg to the status of elector, the highest rank in the Holy Roman Empire. In the wake of the Thirty Years' War (1618–48), the Braunschweig dynasty had acquired a de facto power that rivaled that of the most powerful houses in the empire. But power could be fleeting. Leibniz's task was to demonstrate genealogically that the ancient dignity of this House of Guelf made it worthy of permanent electoral status.

Lauding his employer threatened to make Leibniz appear the most fawning of courtiers, an image he was keen to avoid. So he came up with a scheme to make *Origines Guelficae* a genuine contribution to scholarship: he would append two preliminary dissertations—on the land of Lower Saxony (a geohistory, *Protogaea* [1694]); and on the people of Lower Saxony, who they were and where they had come from (*migrationes gentium*). It was this second preliminary dissertation—impossible to write, as Leibniz eventually learned—that derailed the Guelf history.

Nevertheless, Leibniz was a dogged researcher. From 1691, when he conceived of the two preliminary dissertations, to the end of his life, in 1716, Leibniz built a series of increasingly complex networks of correspondence in order to collect the linguistic data he sought: Florentine bibliographers, Roman mathematicians, Swedish and German antiquarians, the entire Jesuit network in Paris, Antwerp, Warsaw, and Rome, as well as the legion of missionary-astronomers whom the order had dispatched to Isfahan, Goa, and Beijing. We see the scholar, isolated and lonely in little Hanover or even

littler Wolfenbüttel, with his hands on knowledge trickling in from scientific centers across Europe and around the world.

Language was a means to an end. The end was to discover precisely *who* in Lower Saxony were the subjects of the House of Guelf and then to explain *how* those people had come to occupy the region. The operative terms were *Volk*, *Geschlecht* (both German), and *stirps* (Latin). We might translate those as "race," "ethnicity," or "cultural group," except that none of those terms existed in the 1690s nor would they for another century or century and a half. This anachronism—that Leibniz's conceptual apparatus for organizing human people groups, their history, prehistory, and migrations, was fundamentally different from ours—begs the question, How did he perceive global humankind? How did he attempt to classify the various *Völker* into coherent sets? The answers are to be found in his study of language.

Were the Goths the original Germanic tribe? Did they originate in Scandinavia or in Scythia, on the Black Sea? In the sixteenth century it had been reported that a remnant of the Gothic population still lived in Crimea. Were they still there? Had they ever been? Were the Goths Germanic at all, and why did so little evidence remain of their three-hundred-year kingdom in Spain? The Goths being long gone, who were the present inhabitants of Scythia and Grand Tartary? Why were Germanic words to be found in the Persian language? What was the relationship between the various "Tartars" on the Black and Caspian Seas and the other peoples who intersected there—Siberians, Mongols, Uzbeks, Turks, Finno-Hungarians, as well as speakers of Slavic and Germanic languages?

Orientalism

Forty years ago Edward Said argued that in the nineteenth century European scholarship adopted an inherently condescending perspective on the nations of western and southern Asia. Although scholars admired the achievements of the ancient Egyptians, Hellenistic culture in Asia Minor, and so on, the peoples of those regions had achieved little in the millennium since the decline and fall of the ancient civilizations. Steam-powered Europeans had surpassed them all. Said made clear that he was targeting chiefly industrial Britain and France in the nineteenth century, and he acknowledged that the situation might have been different in, say, Germany or in the eighteenth century. Twenty years ago Jürgen Osterhammel showed in *Die Entzauberung Asiens* that in the eighteenth century, Europeans possessed a detailed and nuanced understanding of the peoples of Asia both ancient and con-

temporary. Antiquarians and philologists pieced together broken fragments of texts and buildings, coins, and inscriptions to reconstruct the chronologies of the ancient civilizations, while naturalists traveling with merchants and navies filled out Europe's understanding of the New World. Donald F. Lach and Edwin Van Kley wrote nine volumes over thirty years that showed the centrality of "Asia in the making of Europe." But no individual possessed the whole of that knowledge. A book published in a small print run in Paris or Amsterdam did not necessarily make it to the Holy Roman Empire. Whereas these historians demonstrated the vast totality of knowledge accumulated in scholarly journals and libraries, the quest for knowledge of Asia hidden in the Leibniz correspondence shows just how difficult it was to acquire specific knowledge of Asia even when one actively sought it. Lacking a comprehensive research library, Leibniz had to assemble most of his knowledge from disparate informants at princely courts scattered about the continent.

Historical Linguistics

Somewhere out there—near or beyond the Caspian Sea—lay the source of so many languages and nations. The ancient Greeks called that unknown region Scythia. Early modern Europeans called it Grand Tartary. The Byzantine historian Jordanes called it the *vagina gentium*, the womb of nations, from which the hoards that had overrun the Western Roman Empire had emerged.

> It is widely agreed that *Scythia is the vagina gentium*; that not only the Hungarian and Slavonic peoples but also the greater part of the Germanic nation emerged from there. The Cimbri, the Goths, the Polish and Bohemian Sarmatian peoples, the Hungarians, the Estonians, the Huns, Alans, Vandals; the Persians or Parthians, the Bulgars, the Cumans, even the Turks all came from Scythia. Thus these researches would go to the source of all these peoples. . . . Someone wrote that the peoples of Juhra in extreme Russia use a speech nearly Hungarian, they think the same for certain other populations in other regions at the Caspian Sea. It is known that in the Roman era, before the advent of the Tartars, Germanic peoples inhabited the coast of the Black Sea; according to Busbecq a remnant of that Germanic nation was still to be found in Crimea. Others have shown that there are a number of Germanic words in the Persian language. Thus if we were better instructed about the peoples of interior Scythia, this would serve to illustrate something about the origins of the Slavic, Germanic, and Hungarian nations.[2]

Scythia, Grand Tartary, the womb of nations. Central Asia was the crossroads of empires: Muscovy, Persia, Ottomania, all vying in a three-way contest to assert control over whatever territory they could, even as nomadic hoards fought them off and fought against one another. From Jesuit maps and other sources Leibniz knew that "under the Muscovites there are Siberians, Samoyeds, Tartars and other peoples from the River Ob to the frontiers of China, because the Muscovites are in conflict with the Chinese over the boundary. And how many kinds of Tartars are there beyond those of Crimea, like Nogais, Czeremisses, Calmucks; and just as many Mongols, from whom came the famous Genghis Khan, and of Bogdais or Niuche, the latter of whom, if I am not mistaken, conquered China."[3]

No historical records survived the migrations out of central Asia and Scythia. The origins of nations and their relationships to one another could only be reconstructed from whatever fragmentary remains could be collected and puzzled together. Leibniz hoped that on the basis of fragmentary evidence he could build a genealogy of European nations. The relics of those ancient nations he hoped to find surviving in the modern languages of Grand Tartary. If linguistic samples could be collected from the many nations of Greater and Lesser Tartary, then those samples could be compared and relations between the nations figured out. One text that had been translated into many languages around the world and thus could be used as a basis for comparison was the Lord's Prayer.

European missionaries and scholars had been collecting versions of the Lord's Prayer since the late fifteenth century, even before the voyages of exploration. By the end of the seventeenth century they had about a hundred of them, and by the early nineteenth century linguists could offer a tour of world languages through an assemblage of five hundred Our Fathers. Leibniz's linguistic project fits squarely in this three-hundred-year-long project of collecting the Lord's Prayer in different languages. "We now have the Pater Noster or Lord's Prayer in many languages," Leibniz wrote to one correspondent. "For that reason it would be useful to translate it into those unknown languages so that, by comparison, agreement and disagreement with known languages, they would be better understood. This will be in the interest of propagating the Glory of God and Piety, *that every tongue might praise the Lord*."[4]

"Our Father who art in heaven" was relatively straightforward. But how did one translate into Mongolic Kalmyk that peculiarly Christian formula "hallowed be thy name"? If the formulas were too difficult, then Leibniz hoped that one could at least get the component words: *Our*, *Father*, *to be*, *Heaven*,

sacred, *name*, *will*, *to do*, *to give*, *earth*, *bread*, *debt*, *evil.* Even better would be to add other words expressing things common to all human beings—relationships (*father*, *mother*, *sister*, *brother*); body parts (*head*, *shoulders*, *knees*, *toes*); nature (*sun*, *moon*, *stars*, *earth*, *sky*, *rain*, *water*)—terms that form the indigenous core of a language (not loan words), which would establish a basis for linguistic comparison.

To collect such basic language samples should not be an onerous task. Merchant trains came to the major cities of the Muscovite Empire: Moscow, Kazan, Tobolsk in Siberia, Astrakhan on the Volga. Any European agents stationed in those cities could approach merchants at the markets and obtain basic vocabulary lists. Market cities had professional interpreters, and Jewish and Armenian merchants could help as well. "But," warned Leibniz, "make sure they get samples of native speakers, not foreigners, for in Siberia, most of the nobility speak Russian."

The project of reconstructing prehistoric origins and migrations went to the core of European self-understanding and national identity. Leibniz explained, "Such an inquiry would be very fruitful for better understanding our world by finding the origins and varieties of peoples. Language is the oldest, most abundant monument, long predating writing, and I believe it to be the best means by which we might establish the relationships between nations and their migrations."[5]

Much of the material in the following pages does not look like historical linguistics. This is certainly so if one understands by that term a modernist definition of the discipline as comparative grammar.[6] That enterprise was not possible until the full apparatus of European imperialism moved in in the early nineteenth century. But why should we expect to find a modern science in a period that was still early modern? Thomas Trautmann, a historian of comparative grammar in British India, points to Leibniz as standing in the philological tradition that would be reconfigured at Calcutta and Madras.[7]

Instead of asking whether Leibniz's linguistic inquiries have anything to do with modern science as practiced at present, we might ask how much they have to do with language at all. Certainly a lot more is expressed in any given letter than mere linguistic interest. Rare is the letter that is devoted exclusively to language. Leibniz and his correspondents moved easily from language to mathematics, theology, law, scholarship, news of the republic of letters, and material antiquities, all in a single letter, and any number of these threads continued over the course of multiple exchanges that endured for two or

three years. The Sparwenfeld letters had to be completely disassembled and rearranged according to their component parts in order to make any sense of the course of that conversation. In this sense, a method like Bruno Latour's Actor-Network Theory was a plausible strategy for organizing this book. Actor-Network Theory offers a means of explaining the movement from one domain to another (from linguistics to theology, law, etc.) in the course of one's "scientific" activities. It also accounts for the element of surprise—the unexpected difficulty or encounter—that sneaks into scientific work. To be sure, we will see Leibniz frequently surprised. Doors opened that he never knew existed. Other doors that he expected to open easily turned out to be brick walls. In the end, despite a quarter century of effort, despite having clearly articulated what knowledge he sought and the purpose for which he sought it, the banality of historical accident obstructed his efforts to obtain the linguistic data he had set out to find. Instead he created an enormous network of correspondents—their discussions by no means limited to linguistics—who sent him the material and encouragement that cemented his reputation as a universal genius.

I do not present the material here as a finished system. This may disappoint scholars who understand Leibniz as a philosopher. The reader will not find any systematized theory of languages nor even any conclusions that summarize what Leibniz managed to learn over twenty-five years of inquiry. This is because Leibniz himself remained unable to pull all of his linguistic knowledge into a satisfactory system. Instead I show a Leibniz struggling to build a correspondence network (or perhaps a "cluster" or a "knowledge community") that would bring him the knowledge he required. I show bits and pieces of knowledge, incomplete, discontinuous, which he had to assemble, like a puzzle whose shape was not known and most of whose pieces were missing. Many of those pieces remain missing to this day.

Partly because of its structural implications, partly because it is oriented more toward the sciences in their modern institutional configurations, I opted not to take a rigorously science-studies approach. So frequently Leibniz's philosophy is presented as a complete system, static in appearance, even if the historian gleaned the substance of such a philosophy from a variety of published sources as well as his *Nachlass*. I feared that a structural analysis would suggest a false completeness. If anything is true of Leibniz's linguistic inquiries, it is that they remained fantastically *in*complete and unsatisfactory. Instead I found that a fundamental feature of his linguistic inquiries was motion, change over time. Although particular core themes remained constant

(e.g., the purpose of these linguistic inquiries was the second preliminary dissertation to *Origines Guelficae*), curious as he was, when new avenues of inquiry opened up, Leibniz followed them. More than once I restructured my entire presentation. Ultimately I settled on a more or less straightforward, chronological, historical narrative. Such a narrative, showing development over time, enabled me to ask, What did Leibniz know, and when did he know it? I watched as his network of correspondents unfolded and grew in directions neither he the actor nor I the researcher expected.

A chronological narrative enabled me to move beyond abstract philosophical ideas and show how Leibniz did his work. Lacking a modern postal system organized by numerical location codes, how did one route a letter to an intended recipient? Given the strongly hierarchical society of the Baroque, how did one reach people (or acquire knowledge) from beyond one's own circle of correspondents?

Ultimately, it was the French Jesuit mission that came through for Leibniz, but not until 1695 and not really until 1697. Initially Leibniz sought linguistic knowledge through his Italian network—Philippe Grimaldi specifically but also scholars in Rome and Florence who knew the route of Grimaldi's travels. But what linguistic data he actually won from this Italian network were meager (chapter 3). After 1697 he did begin to acquire some real knowledge of the Far East, but this came through the French Jesuits stationed in China (chapter 9). In order to understand how linguistic knowledge might be obtained and how political, religious, and geostrategic configurations constrained the scholar in his ambitions, it is worth investigating how the Jesuit missions functioned in the 1680s and 1690s and what those missionaries were trying to accomplish (chapter 4).

In addition to Leibniz's network of correspondents on the topic of languages and European origins, this book tells four stories related to the Jesuits of China that were important sources of linguistic knowledge for Leibniz or (usually) that Leibniz hoped would yield some tangible data from the interior of Asia. These are Philippe Grimaldi's attempt to return overland to China; Philippe Avril's reconnoitering of possible land routes through Persia, Bukhara, and Muscovy; Jean-François Gerbillon's work in 1689 as an interpreter at the border negotiations between the Muscovite and Qing Chinese Empires, work that resulted in a liberty to preach and opened the most productive fifteen years of Christian missions in China (1692–1707); and Ferdinand Verbiest's astronomy, which put the Jesuit order in its position of prominence, and Verbiest's calls for more laborers in the mission field now that the harvest was

ripe. All of these stories belong to the 1680s (Verbiest died in 1688, and Grimaldi, still traveling, was appointed his successor), but Leibniz came to know them only in the 1690s during the course of his linguistic investigations. He began to engage the Jesuit mission in China only at the end of 1697, when he made the acquaintance of Joachim Bouvet. By then, we can say, his correspondence network finally had begun to work—and that is where my story ends.

In the meantime, there is poor Grimaldi, exposed as he was to all the hardship and danger of early modern travel and faced with so much frustration. Although he began his return to China at the chronological beginning of this narrative, I shall have to leave him there in 1689 unexplained for a couple of chapters. But not to worry. Even if Grimaldi understood the reasons his visa application was rejected, Leibniz would not come to understand it until several years later.

Making the Worst of a Bad Assignment

Origines Guelficae and the Linguistic Project (Autumn 1690–Summer 1692)

> These researches into linguistics and etymology seem a regrettable distraction to those approaching Leibniz primarily as a brilliant metaphysician and mathematician. . . . His insistence on prefacing his Guelf history with a survey of tribal migrations and linguistic harmony appears yet again to demonstrate his ability to make the worst of a bad assignment.
>
> —Maria Rosa Antognazza, *Leibniz*

Before we watch Leibniz build his network of linguistic correspondents, we should determine what he thought he was up to. Leibniz's linguistic inquiries of the 1690s were integral to his genealogy of the House of Guelf. He settled on his plan for that genealogy after he returned from Italy, during the winter of 1691, between January and March.

First, some basic chronology. In 1675 Leibniz entered service to the Lüneburg branch of the Braunschweig dynasty, resident at the city of Hanover. In 1685 he was commissioned to write the history of the House of Guelf, whose goal was to elevate the duke of Braunschweig-Lüneburg to the rank of elector in the Holy Roman Empire. In 1687 he departed on a grand tour of southern Germany and Italy to find the precise genealogical link between the House of Guelf and the House of Este. This would demonstrate the dynastic dignity of the Guelfs and legitimize their claim to electoral status. By the summer of 1690 Leibniz was back in Hanover, and during the next fall and winter he sketched several plans for a work entitled *Origines Guelficae*. By March 1691 he had figured it out: there would be two preliminary dissertations prefaced to *Origines Guelficae*.

The "first preliminary dissertation" was *Protogaea*, a history of the earth, describing the geological features of Lower Saxony, where the Guelfs were based. For this preliminary dissertation, Leibniz drew on his own empirical observations as manager of mines in the Harz Mountains in the 1680s. In addition to stratigraphy, he was particularly interested in fossils embedded in

the rock that did not conform to living species. *Protogaea* was completed in 1693. Leibniz published a three-page abstract in *Acta Eruditorum*, but the whole dissertation was not published until 1749.[1]

The "second preliminary dissertation" addressed the prehistoric *migrationes gentium*, that is, the migration into Europe of the nations then located there. In Italy Leibniz found eleventh-century tomb epitaphs that proved the precise connection between the House of Este and the House of Guelf: a marriage between Azzo II and Kunigunde von Altdorf. From their union came Welf IV, elevated to Duke of Bavaria in 1070, who was the direct ancestor of the House of Braunschweig-Lüneburg. But with the next generation, Leibniz ran into genealogical difficulty: Why had Pope Gregory VII forbidden the marriage of Duchess Matilda of Canossa to Adelbert Azzo II on grounds of consanguinity? What was the origin of Mathilda's mother, Beatrix, *stirpis Lotharingicae*? For that matter, "von was für einem geschlecht gewesen sey der Sigefridus" (i.e., Siegfried of Lucca, founder of the House of Este), of whom nothing could be said for certain other than that he was "ein Herr so ex agro Lucensi in Lombardey." The sources for the House of Este claimed forcefully that "daß der gedachte Sigfridus ex stirpe Estensi sey," but Leibniz found the sources to be incorrect, full of errors, and unreliable.[2] Therefore, in order to make sense of the documentary evidence, which went back to the tenth century or so, Leibniz determined to sort out the various *Völker* of Europe, their origins and migrations. This was the purpose of the second preliminary dissertation, entitled *Migrationes Gentium*. Where documents were lacking, language was to serve as the evidence.

First Pursuit of Language

Leibniz's interest in historical languages emerged at a specific moment and for a specific purpose. That moment was between January and March of 1691. His goal was to reconstruct the prehistoric origins and migrations of the peoples of Europe and, if possible, to locate the Lower Saxons at or near the base of the family tree. By *historical languages* I mean real languages as spoken by real people. This project had nothing to do with his other projects on universal language, an artificial discourse that could surmount the ambiguities of local tribal languages. Nor was it related to the *Clavis Sinica*, or "Key to Chinese," that Andreas Müller was working on in Berlin in the 1670s and 1680s in distant collaboration with Phillipe Couplet and other Jesuits involved in the mission in China. Leibniz did carry on an extended correspondence with the Jesuits in China (and elsewhere across Europe; indeed, the Jesuit

mission in China is a central part of the analysis offered here), and he exchanged ideas with them regarding the *Clavis Sinica*, the *characteristica universalis*, and historical languages. But as I read through the correspondence of the 1690s, it became evident to me that his inquiry into "historical languages" was separate from the universalizing projects. Although he bore an interest in the philosophy of language from early in his career, tangible historical languages served as a tool relevant to the history of the House of Guelf, *Origines Guelficae*. By comparing samples of living vernacular languages, Leibniz intended to sort out the relationships between contemporary nations in order to explain who were the people of Lower Saxony—between the Elbe and Weser Rivers and from the Harz Mountains to the North Sea—and how they had migrated into Lower Saxony long before the Guelfs became their rulers. That is, unlike his longstanding idea of a universal characteristic, his interest in historical languages served a very limited and particular purpose as part of the Guelf history.

Leibniz hit upon the topic of historical languages in the winter of 1691. This can be confirmed both positively, through clearly dated letters, and negatively, through an absence of interest in language where we would expect to find it.

Via Negativa*: No Interest Where We Would Expect There to Be*

GRIMALDI, 1689

Although it would have served him well during his grand tour in Italy when he made the acquaintance of the Jesuit network that would come to play a central role in his linguistic inquiries, Leibniz had no particular interest in historical languages. For example, in 1691 and 1692 he wrote to the Jesuit and Chinese Mandarin Philippe Grimaldi hoping to enlist him as a primary linguistic informant. But in July 1689, when Leibniz and Grimaldi met personally on two or three occasions, Leibniz was not particularly interested in language. Earlier I mentioned that in fact Grimaldi repeatedly raised the topic of Tartaric peoples and languages. According to notes Leibniz made following one of their meetings, Leibniz kept drawing the conversation to other topics, while Grimaldi kept talking about language. For example, explaining the distinction between the Oriental Tartaric of the Manchus and the Occidental Tartaric of the Mongols, Grimaldi described their systems of writing and from where they had been derived. But these topics were so far from Leibniz's mind that in his notes Leibniz confused *oriental and occidental*, right and left, and even horizontal and vertical.[3] In preparation for a second meeting, Leibniz drew up a set of thirty questions for Grimaldi, not one of

which addressed the languages or nations of Grand Tartary or the Far East.[4] Nevertheless, at that meeting Grimaldi showed Leibniz a little vocabulary book he had brought with him from China.[5] Leibniz made note of the book, but in 1689 he had not yet hit upon his project of the origins and migrations of nations. By June 1691 Leibniz recognized that he had missed an opportunity at Rome, and he attempted to contact Grimaldi through a letter. And in 1692 he lamented to Adam Adamandus Kochanski that he had neglected to ask Grimaldi more about Tartaric languages when he had the chance. By then his linguistic project had taken shape.

HIOB LUDOLF, 1687

A second example of an absence of interest in language where we would expect to find it comes in Leibniz's initial exchanges with Hiob Ludolf, a scholar of Oriental languages and specifically the Amharic language of Abyssinia (Ethiopia).[6] Leibniz met Ludolf in Frankfurt in late 1687, toward the beginning of his grand tour. Hans Aarsleff contended that a follow-up letter that Leibniz wrote to Ludolf marked the beginning of Leibniz's inquiry into language.[7] I contend otherwise. In the 1690s, after Leibniz had returned from Italy and after he had defined the second preliminary dissertation to *Origines Guelficae*, Ludolf would become one of Leibniz's most important collaborators on language. In this 1687 letter Leibniz offered suggestions on how Ludolf might organize an institute for Germanic history, language, and law. But Leibniz gives no indication that he himself would participate in such a project. Nor does this first letter to Ludolf offer any evidence that their meeting stimulated Leibniz to inquire into languages more broadly. However, because both Aarsleff and Waterman have attributed to this letter great importance for Leibniz's linguistic interests, it is worth spending a couple of pages examining this letter closely.

What Leibniz Said The letter to Ludolf has four parts. The first part endorses an essay Ludolf had written proposing an amicable resolution to the war in Hungary against the Ottoman Empire. Ludolf had lent a copy of his essay to Leibniz, which Leibniz now returned.[8] Leibniz found Ludolf's intention admirable, and he took excerpts for himself, but he doubted the sincerity of Europeans themselves. He complained that the French were already rattling their swords loudly, even though he knew nothing of machinations within the Holy Roman Empire. Already the Grand Alliance, which would launch

William of Orange across the Channel within a year, was taking shape. Once war did break out the next fall, Leibniz, then at Vienna, would reprise his anti-French *Mars Christianissimus* (a satire of the supposedly Most Christian King now attacking his fellow Christians) from 1684, and he recited a section of Latin poetry for Ludolf.

The second part proposes a multi-scholar institute for the study of ancient languages, discussed in more detail below.

The third part discusses plans for a collaborative institute for the study of Germanic antiquities. The emperor himself supported an *academia naturae curiosorum*. Why not also an institute for history? Sweden had established such an institute for studying its own antiquities, and language was a substantial part of its work. By royal authority, Georg Stiernhielm (1598–1672) had been its first president. Leibniz would argue for imperial funding before the emperor himself the following October.[9] Although that argument was not immediately successful, Ludolf, Christian Franz Paullini (1643–1712), and Wilhelm Ernst Tentzel (1659–1707) would found the Collegium Imperiale Historicum in 1690, with Leibniz serving informally in an advisory role.[10] In this 1687 letter, Leibniz commented that he himself possessed more than a few unpublished monuments of history.

Knowledge of history and languages had a tangible utility. In the fourth part of his letter Leibniz encouraged Ludolf in his plan for a harmony of the law of nations. Leibniz himself had attempted something of the sort when he compiled a table of Roman case law. From memory he sketched an outline of that work and enclosed it for Ludolf along with Ludolf's volume *De Bello Turcico*.

But it is the second part of Leibniz's letter to Hiob Ludolf (the only part addressed by Aarsleff and Waterman) that chiefly concerns us. Ludolf had a plan for creating a universal alphabet, a bright idea that Leibniz, who had long toyed with such a scheme himself, enthusiastically endorsed. Foreign characters were a tough nut to crack, Leibniz agreed. A student could learn a language in half the time if the alphabetic shell were opened so the meat inside could be easily picked. "Certainly those barbarian characters are incidental things, without which the language could stand, and be expressed and written. Why therefore do we double the difficulty for ourselves, which is already great enough?"[11] Serious scholars, having reached a certain level, could eventually learn the native alphabet and paleographic forms for reading manuscripts. But to typeset ancient or foreign works in their original characters

made them expensive to print and difficult to use. Leibniz thought Ludolf's universal alphabet would be a great boon to students and scholars.

Leibniz proposed to Ludolf that he supervise a series of little dictionaries and grammars. He envisioned small works, for conversation, composition, and easy reading, useful little tools for learning the rudiments of language, not massive, exhaustive tomes. Ludolf himself was too busy with other projects to undertake such work himself, but with his Mithridatic knowledge of some twenty-five languages he was certainly in a position to organize such a series. Once such a series of dictionaries and grammars was accomplished, then scholars would be able to investigate the harmony of languages, which in turn might reveal the origins of nations. Who knew what other secrets might be revealed? Stiernhielm and his colleagues at Uppsala had attempted just such a project, but they had been thwarted by a lack of linguistic data.

While they were at it, Leibniz hoped that eventually the dialects of every living language might be reduced to writing. Who were those people he had heard of in the hills above Toledo, in central Spain, whose language was completely different from all the others in Iberia? "By these inquiries the fog of every ancient language and the meanings of proper nouns could be illuminated." If Ludolf should organize such a project, he would be the Stiernhielm of the Holy Roman Empire.[12]

What Leibniz Did Not Say Although Leibniz expressed a clear interest in languages and their comparison, including a "harmony of languages" that might trace the common origin of all nations, this letter to Ludolf early in his grand tour in 1687 does not represent the beginning of Leibniz's interest in historical languages. The big plans presented here were to be undertaken by Ludolf, not by Leibniz. Leibniz was fully aware that in addition to the ongoing Swedish attempt to place their own nation as the mother of the Germanic peoples, the idea that a harmony of languages might explain the origin of nations extended back through the seventeenth century in the work of Johann Heinrich Alsted (1588–1638), Johann Amos Comenius (1592–1670), Johann Heinrich Bisterfeld (1605–1655), and Hermann Conring (1607–1681).[13] But his own substantial efforts in this direction would not begin until three years later. That specific interest was yet to come, and although some of the parameters mentioned in this first letter to Ludolf were taken into the linguistic project, in 1691 Leibniz began to express that linguistic project in very different and much more specific terms.

JOHANN PETRUS ERICUS, 1690

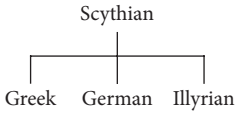
Nor does Leibniz seem to have hit upon language inquiry in other places we might expect it. None of his letters to Daniel Papebroch, Chilian Schrader, or Gerhard Meier, all of whom would assist Leibniz with linguistic matters in the future, reveal any linguistic project by Leibniz through the end of 1690. Consider a third example of an absence of interest in linguistic matters where we would expect to find it, Leibniz's correspondence with Johannes Petrus Ericus. A native of Eisenach in Thuringia, Ericus had relocated to Padua, where he was a gymnasium professor of languages and geography. In 1690 Ericus was in Venice, where Leibniz met him on his slow return to Hanover. Leibniz and Ericus went on a walk together, and among their topics of discussion was a plan of Ericus's to show by the harmony of languages that the Germanic language was ultimately derived from ancient Greek. Ericus advanced this thesis in a work he called *Anthropoglottogonia* (Genesis of human language). He published the work at Venice in 1697, but apparently it was already largely complete in 1690. Ericus complained to Leibniz that he could not print it until it had received the imprimatur, but the inquisitor was tied up in a lawsuit brought by a group of reformers at Padua. When it was finally printed, Leibniz would read it closely, and he addressed it at length in the one synthetic essay on linguistics that he ever wrote, *Epistolica de historia etymologica dissertatio* (1712, but published only posthumously). There Ericus represented the position that the primitive language was Greek.[14]

When Leibniz first wrote to Ericus after his return to Hanover, he opened the letter by reminding Ericus of his high regard for the harmony of languages and the walk he had enjoyed so much. But in November 1690 the project belonged to Ericus, not to Leibniz. Leibniz had a different reason for writing. While on their walk, they had bumped into an acquaintance of Ericus's who had recently inherited a collection of coins and expressed interest in selling it. When Leibniz mentioned the collection at Hanover, Otto Grote, the president of Duke Ernst August's *Kammer*, expressed interest in buying it. So Leibniz asked Ericus to ask his acquaintance to send him an index of the coins he owned. Interested in cultivating his correspondents in Italy, Leibniz raised other topics that Ericus might know something about, such as the whereabouts of the Dutch antiquarian Jakob Tollius; last seen in Padua, he seemed to have vanished.[15]

When Ericus responded a month later, he duly enclosed the requested index of coins. He also sent greetings from another scholar with whom they

were mutually acquainted. Ericus complained to Leibniz that Wilhelm Ernst Tentzel had recently disparaged one of Ericus's characters (and thus Ericus's intellectual position) from a dialogue Ericus had published in 1686.[16] Leibniz had not seen that issue of Tentzel's *Monatliche Unterredungen*. (But I have seen it: The statement in question, one sentence long, acknowledges that the discussant had not read Ericus's work thoroughly although he had the book. And even if the statement was not a ringing endorsement of Ericus, there was nothing disparaging about it.) Leibniz did his best to soothe the sensitive Ericus. He agreed that scholars ought to offer full reviews of good books instead of mere censures. It was too easy to pull out some section, as if torn from a living body, and then call it weak or deformed.[17]

For example, Leibniz himself was not yet fully persuaded by Ericus's hypothesis of Greek origins. That didn't mean that he didn't appreciate Ericus's efforts. To the contrary, the use of the harmony of languages to derive a common origin resonated with Leibniz. But he suggested a more remote location for that common origin: Scythia. In Leibniz's judgment, the easiest overland route from Scythia to Europe would have taken immigrants through Greece and Illyria.



Leibniz did not schematize the genealogy graphically as I do here, but he did call it a genealogy: "Nevertheless your observations please me greatly, by which you show something like a genealogy corresponding between the European languages, . . . and I would wish that many examples of this kind be supplied to me, for they seem to be of no small moment."[18] When Leibniz wrote this in January 1691, he was getting close to defining his linguistic project. What he requested of Ericus was similar to the kind of request that he would begin to make of his growing network of correspondents. But his purposes were not yet fully articulated. Had he hit upon *harmonium linguarum* as the organizing principle for a preliminary dissertation to the Guelf history, one would expect him to have said so to Ericus.

Having seen the index of coins, *Kammerpräsident* Otto Grote was no longer interested in purchasing the collection. But, said Leibniz, if Ericus came upon any coins of the dukes of Este, he would be grateful for an index of those. Johann Petrus Ericus never wrote back.

Via Positiva*:* Migrationes Gentium *Articulated*
terminus ante quem: 26 march / 5 april 1691

Even though he encouraged Hiob Ludolf and Johann Petrus Ericus to investigate the harmony of languages, Leibniz's correspondence indicates that through the end of 1690 he had no particular program of his own for comparative language study. That is, he had not yet established the plan for *Origines Guelficae*, and certainly not for its two preliminary dissertations.

But three months later, by the end of March 1691, Leibniz had defined what *Origines Guelficae* would be, and comparative language study would be a key part of it. As Hans Aarsleff described it, "Linguistic interests . . . almost explode in the correspondence. . . . Then suddenly, in March of 1691, he writes a complete program for the study of language in a single, powerfully written page that is clearly the fruit of much careful thought."[19]

The "single, powerfully written page" was part of a letter to Huldreich von Eyben, a law professor at the University of Helmstedt. Leibniz explained to Eyben that in addition to showing the medieval genealogy of the ruling house of Hanover, he needed to show how the subjects of those rulers had first come into Lower Saxony. Were they originally from Scandinavia, as Swedish scholars had been attempting to prove since the middle of the seventeenth century, or had they come from Scythia? Because these original migrations were prehistoric, that is, from before the Germanic immigrants had writing, about the only evidence Leibniz had to work with was language. "I am fully persuaded that the Harmony of Languages is the best means to judge the origin of nations, and nearly the only one that remains practicable for us where there are no histories."[20] Leibniz suspected that most of the languages from Europe to central Asia shared a common origin, and he imagined something like what would become the Indo-European hypothesis in the nineteenth century. "It seems that in fact all languages from the Indus River to the North Sea [Mare Germanicum] are of a single origin." He marveled that a language as far away as Persian reportedly shared cognate words with German.

In his letter to Eyben he dropped the name of the Swedish statesman Bengt Skytte (1613–1683), a former, respected colleague whom Eyben had known years before and whom Leibniz had met once in the 1660s. (Leibniz had also mentioned him in the 1687 letter to Hiob Ludolf discussed above.). Skytte had collected root words from many known languages with the intent of reconciling them with one another. Leibniz wondered where that work had gone now that Skytte had passed away. Anyone who intended to draw firm

conclusions about the relationships between languages also would have to collect the expressions used by common people in the subdialects of the major languages, a topic he had also mentioned to Ludolf in 1687. "But I won't exert myself too much with these kinds of things at the moment," Leibniz promised, "rather only to touch on one or two in order to serve the goal."[21] Little did he know.

In fact, this letter to Huldreich von Eyben launched Leibniz on his comparative-linguistic inquiries. Within days he wrote to Chilian Schrader at Celle to request a sample of Wendish, a Slavic language spoken in an enclave along the Elbe River in Lower Saxony, and by May 1691 he had that language sample in hand. The next chapter discusses Leibniz's local network of correspondents in Lower Saxony, including how he obtained a version of the Lord's Prayer in the Wendish language. For now it is sufficient to state that Leibniz's letter to Huldreich von Eyben of March/April 1691 stands as a *terminus ante quem* Leibniz's plan for a linguistic investigation of his own came together in his mind.

terminus post quem: 11/21 january 1691

Let us look again at January 1691 in order to determine when and in what form Leibniz's plan for the two preliminary dissertations to *Origines Guelficae* began to take shape. Another letter to Huldreich von Eyben, Leibniz's first to him, dated 11/21 January 1691, can serve as a *terminus post quem*, that is, a time after which he hit upon his two preliminary dissertations.

Shortly before he first contacted Eyben in January 1691, Leibniz had an audience with Duke Ernst August to discuss the Guelf history. Following that meeting, two of the duke's privy counselors, Otto Grote and Albrecht Philipp von dem Bussche, suggested that Eyben might be able to offer advice on the genealogical and legal problems involved in sorting out the history of the House of Braunschweig-Lüneburg. As a member of both the Reichskammergericht and the Imperial Council (Reichsrat), Eyben had an extensive knowledge of both secular administration in the Holy Roman Empire and genealogy in the medieval period. In this first January letter to Eyben, Leibniz explained his triumph in linking definitively the House of Braunschweig-Lüneburg with the House of Este and described some of his remaining difficulties in sorting out the genealogy in the eleventh and twelfth centuries.[22]

Eyben turned the letter around in short order, responding just nine days later with an eighteen-point commentary that he dictated to his secretary and

then amended with his own hand.[23] Neither Leibniz's initial letter to Eyben nor Eyben's response in January 1691 contains any indication that Leibniz was considering appending a preliminary dissertation, neither *Protogaea* nor *Migrationes Gentium*, to the *Origines Guelficae* project. Considering the importance Leibniz gave to language and tribal migrations in his next letter to Eyben, one would expect to find some mention of the preliminary dissertations in this first letter of 11/21 January 1691, but there is none whatsoever. However, the very next day, that is, 12/22 January 1691, Leibniz drafted the letter to Johannes Petrus Ericus at Venice discussed above, in which he sketched a genealogy of Scythia as a mother to the daughter languages of Greek, Illyrian, and Germanic. Again, although Leibniz expressed opinions about linguistic relationships, in neither the Eyben letter nor the Ericus letter did he suggest that he was thinking about a linguistic investigation of his own. Thus, I think it is safe to say that the Eyben letter of 11/21 January 1691 stands as a *terminus post quem* his linguistic investigations began.

In addition to the Eyben letters from January and March/April 1691, two other sets of documents from the winter of 1691 can assist our understanding of what Leibniz was thinking when he sketched the contours of *Origines Guelficae*. These are two versions of a German-language "Entwurf der Welfengeschichte" and several manuscript drafts of a Latin-language "Brevis synopsis historiae Guelficae." Although all are clearly related, as sketches of the Guelf history, they date from different moments, and they reveal when Leibniz began to consider the two preliminary dissertations, and in particular the *Migrationes Gentium* and his linguistic inquiry. These two sets of sketches help us to see more clearly when, how, and why he began to seek the advice of scholars (and very quickly, travelers) on linguistic topics.

It is only because of the excellent edition of Leibniz's writings and letters specifically on history, published by Malte-Ludolf Babin and Gerd van den Heuvel separately and in advance of the regular schedule of the official Akademie Ausgabe, that we can conveniently see these documents side by side and reconstruct Leibniz's thinking as he developed the plan for *Origines Guelficae*. Babin and Van den Heuvel were conservative in assigning dates to these documents, but on the basis of evidence internal to the documents themselves, I think more precise dates can at least be suggested. I would argue that the presence or absence of the preliminary dissertations and the degree to which those dissertations were elaborated suggest that the Latin "Brevis synopsis" was composed first (although its parts were composed in separate stages).

Next came a short version of the "Entwurf" (Konzept L^2 in the Babin and Van den Heuvel edition), and last the fullest expression in the larger version of the "Entwurf" (Konzept L^1 in the Babin and Van den Heuvel edition), which I show contains most of the elements present in the March/April letter to Eyben, the only one of these documents that bears an indisputable date. Let us take these one at a time.

The Latin-language "Brevis synopsis historiae Guelficae" is a brief summary of the Guelf history. "Brevis synopsis" actually refers to multiple manuscripts that have been reconstructed as a composite whose purpose was to show Leibniz's project as a more or less coherent system. But my intention here is to point out that during the first quarter of 1691 the contours of the Guelf history remained amorphous and shifting as Leibniz struggled to create a project that would be satisfactory to himself, to Duke Ernst August and the Hanoverian regime, and to the community of scholars across Europe. The title "Brevis synopsis" is not Leibniz's but belongs to Georg Heinrich Pertz, who first assembled the manuscript drafts into a critical edition, which he published in 1847. Pertz took the title from a phrase at the end of one of the manuscript drafts. Babin and Van den Heuvel published a new critical edition in 2004.[24] Leibniz's autograph, which Pertz termed L^1 and served as the basis of Pertz's edition, was lost in 1945. But a copy in the hand of a secretary in Leibniz's employ from his return to Hanover in June 1690 until February 1691 allows us to date "Brevis synopsis" to that period.[25] Pertz termed this secretarial copy l^1.

In this first draft, dateable to February 1691 at the latest, Leibniz described the decline of Roman power in late antiquity and an influx from "the north" of new Germanic settlers, whose names and rulers changed along with their locations. When the turbulence from this wave of migrations settled down, the foundations were laid for the present empires of modern-day Europe. Slavs, the descendants of the ancient Sarmatians, moved in to occupy the abandoned regions, but the rest of Germania remained in the possession of its indigenous nations—Franks, Alemanni, Saxons, Bavarians, Thuringians. The Franks emerged supreme from the internecine struggle and were used by divine Providence to civilize the others. Along the northern coast of the continent, the Saxons spread out, westward to the Channel and across to Britannia, eastward along the Baltic until they encountered the Slavs. Then comes the linguistic part: Leibniz wrote that the Germanic nations distinguished themselves from one another partly in their manners and customs but mostly through their dialect. These he classified according to the Greek

letter tau (τ) and its pronunciation in what he called a sharp Attican *t*, a relaxed Ionian *th*, and a heavier Dorian *d*.

Following Cluverius and Hermann Conring, Leibniz commented in the next paragraph that prior to the Frankish Empire the Saxons had subdivided themselves into eastern and western tribes, *Ostfalia* and *Westfalia*, the *falia* part being a cognate of the English word *foal* (a young horse). It was the eastern wing that became the Saxons, whose territory lay between the Weser and Elbe Rivers, the North Sea, and the metal-producing Harz Mountains. That is to say, roughly the territory of the dukes of Braunschweig-Lüneburg, "according to whose will," wrote Leibniz, now speaking primarily to himself, "I am attempting to write a history of this region together with its ruling clan." He then mused in a difficult sentence something like, "The material diligently assembled in my travels, [despite] Ernst August's mind being averse to flattery, will guarantee for the reader [my] faithfulness, and nor will other examples of various kinds deter me from the pursuit of truth."[26] That is, he intended to write the Guelf history his way and to do it right. This latter sentence Leibniz revised out of future versions of "Brevis synopsis" (he would pick it up again in 1694 or 1695). But by this point Leibniz had lost his train of thought, and he turned the page—literally, in the manuscript from page 7v to 8r.[27]

Thus far Leibniz had sketched the ethnolinguistic situation of Germania at the end of the Völkerwanderungszeit. But we have no sign of the two preliminary dissertations. However, when he took up pen again on the next page, we see a glimmer of them. Leibniz understood his task to be two-fold: to produce a narrative of the princes of Lower Saxony and also of the region itself. The land, being older than both the rulers and their subjects, demanded first attention. Although much of the land's history was shrouded in darkness by the remoteness of time, nevertheless nature did speak through her monuments even before there were human voices. The land had long been submerged, and when the ocean eventually receded, a route was opened for human occupation. Second, the original inhabitants. Were they giants (as Hermann Conring had speculated in 1665), or were they of normal size? And what could be known about them in the ages prior to what the Greek and Roman annalists covered? In the critical editions of Pertz and of Babin and Van den Heuvel the essay continues, but those continuations date from revisions Leibniz wrote years later. Here, in early 1691, he had identified his task, but he had not yet defined what shape it would take.

The second set of documents, in German instead of Latin, offer a fuller sketch of the two preliminary dissertations to *Origines Guelficae*. Like "Brevis

synopsis historiae Guelficae," this "Entwurf der Welfengeschichte" (Draft of the Guelf history) is a pastiche of a couple of manuscript drafts composed at different times and showing different stages of completeness. The shorter, less complete version of the "Entwurf" has been termed manuscript L^2 by the Berlin Akademie editors, while the longer, more complete L^1 contains most of the elements that Leibniz would put in his March/April letter to Huldreich von Eyben.

"Entwurf" manuscript L^2 is a less finished document, a sketch of phrases rather than complete sentences. It reads perhaps as a list of talking points drafted in preparation for Leibniz's audience with Duke Ernst August in mid-January 1691.[28] Leibniz had requested an audience with the duke in a letter dated 5/15 January 1691. There he had sent New Year's greetings to the duke and expressed regret that the history of the house was not complete; indeed, Leibniz would consider himself fortunate if he were able to complete it within two years. What slowed him down was the necessity of documenting his sources at every step, without which the credibility of the work would suffer. He requested an audience to discuss these difficulties and the progress of his work. The "Entwurf" was written on the occasion of that audience. It contains a clue associating it with the audience when in manuscript L^2 Leibniz requested an allowance to hire a copyist plus additional funds to cover his own expenses. The longer L^1 manuscript lacks these two requests. (In fact the allowance to hire a copyist was granted.)[29]

Both versions of the "Entwurf" were composed in second person and addressed to Duke Ernst August, but since they lack any formal salutation, signature, or date, it is not known whether either draft was actually delivered. In any case, Leibniz had the duke in mind when he wrote it. The shorter L^2 manuscript explains that unlike other electoral houses in the empire, such as Hesse or Bavaria, the House of Braunschweig-Lüneburg had roots not only in its present territory of Lower Saxony but also in alpine southern Germany and Italy as well. This made the genealogical work more complicated than it might otherwise have been, and, Leibniz explained, it also required an account of the territory and the people whom the noble house ruled. The L^2 manuscript offers the first glimpse of the two preliminary dissertations: "I must therefore first discuss the natural history and deepest antiquity of the land, showing that it once lay under water, also apparently previously suffered transformation by fire. Thereafter, of the most ancient inhabitants and migrations of those nations, whether they came from the north or rather the north was populated from Lower Saxony."[30] These two sentences contain the essences of

Protogaea and *Migrationes Gentium*, but they lack the details that later descriptions contain. Following these sentences, Leibniz proposed the Germanic situation before and during the Roman Empire, the ancient Saxon language, the Germanic invasions, and the early Middle Ages. That is, this paragraph in "Entwurf" manuscript L^2 echoes the first paragraph of "Brevis synopsis," above.

Compare "Entwurf" manuscript L^1. It is worth quoting at length because this description became the template for later sketches of the work:

> Now to give some idea of this, first I will have to discuss the remotest antiquities of these lands, namely how according to all appearances everything from the Sea to at least as far as the Harz lay under water; how even at Lüneburg so-called *Natterzungen* can be found, just as on the island of Malta, that are none other than the teeth of certain sea-wonders; how the bones of unknown animals appear in the Baumann and Scharzfeld Caves, I myself having carried some of them out of the Baumann Cave; how entire seas were filled in and turned to stone, the shapes of fish remaining in the stone like flies in amber, and eventually embedded themselves in metallic matter in the mines; and similar curiosities that can give the work no small adornment.
>
> Next I will discuss the oldest inhabitants, whether it is to be supposed that they were giants, as some wish to conclude from certain monuments; whether they came from northern lands or whether rather the north was populated from these lands; of the Lower Saxon language as it extended to England and the north; of the oldest monuments that we possess of the old Lower Saxon, old Frankish, and also Gothic languages; of the reports we have that the ancient Germans came out of Tartary and Oriental lands; of the great number of German words that occur in the Persian language, what the ancient Hebrews and Greeks report of these peoples, what reports we have of the ancient Lower Saxons from ancient nordic monuments; how the ocean overwhelmed a great part of this land, and the inhabitants, namely the Cimberi and Teutones were compelled to flee and thus the Germans first came known to the Romans. How shortly thereafter the Romans occupied [the territories] beyond the Rhine and Weser; of the Cherusci, Chauci, Bructeri, Angrivari, Langobardi and other peoples who then lived in these lands between the Elbe and Weser. It will require great effort to sort these things out and to shed light on them.[31]

This description in "Entwurf" manuscript L^1 contains several elements in common with Leibniz's March/April letter to Huldreich von Eyben. Although

not copied verbatim, both descriptions of what would become *Protogaea* include references to

a) the remains of animals;
b) those remains being found in the Baumann and Scharzfeld caves;
c) catastrophes, either flood or sea, subsequently filled in;
d) fish embedded in stone or shale;
e) *glossopetrae* (*Natterzungen*), with comments on scholarship added in the version to Eyben that were omitted from the "Entwurf."

In his description of what would become *Migrationes Gentium*, both documents include references to

a) giants as the original inhabitants;
b) Germanic origins being either Scandinavian or Scythian (referred to as "the North" in the "Entwurf");
c) the German language (Niedersächsische, Frankish, Gothic in the "Entwurf," whereas "teütsche Sprache um Sinu Boddico" in the Eyben letter);
d) words in common in Persian and Germanic.

To Eyben, Leibniz mentioned ship anchors found near Minden and pagan tumuli and burial urns, and the Scandinavian/Scythian-origins question is couched as a discussion of Rudbeck, Skytte, and the *Codex Argenteus*, continuing for a full published page.

To summarize: Three sets of documents from the first quarter of the year 1691 enable us to date Leibniz's organization of the *Origines Guelficae* project with two preliminary dissertations, addressing the land (*Protogaea*) and its people (*Migrationes Gentium*). These three sets were "Brevis synopsis historiae Guelficae," in multiple drafts from multiple times, the oldest being manuscript L^1, which is lost in the original but is preserved in critical editions; "Entwurf der Welfengeschichte," in two versions, a less complete manuscript L^2 and a more complete L^1 that tracks closely to the Eyben letter; and two letters to Huldreich von Eyben bearing positive dates, the letter of 11/21 January 1691 giving no indication of the two preliminary dissertations and the letter of 26 March / 5 April 1691, where Leibniz described both preliminary dissertations in some detail. Thus I think it can be safely established that the two preliminary dissertations, including Leibniz's linguistic project, were under way by the end of the first quarter of the year 1691.

Summer 1692

In the summer of 1692, a year and a half after he articulated his initial plan for *Origines Guelficae*, Leibniz drafted three descriptions of that project for Duke Ernst August and his closest ministers. These were a French-language "Histoire de Bronsvic";[32] a "Petite Idée," or "un petit echantillon," which he sent to Kammerpräsident Otto Grote;[33] and a German version very similar to the "Petite Idée."[34] All three descriptions date from June and July 1692.

On 23 March 1692 the Holy Roman emperor Leopold I accepted the arguments of Duke Ernst August and elevated the duke to the rank of elector. That autumn, Kammerpräsident Otto Grote traveled to Vienna to receive the official investiture of office from the emperor, which was performed in December. In a sense, the initial purpose of *Origines Guelficae* was fulfilled before it was written, which made Leibniz's task much easier. Before Grote's departure, Leibniz explained that he had in hand all the documents needed to write the history of the house down to AD 1235. In that year, as a reconciliation between the House of Guelf and the House of Hohenstaufen, the Hohenstaufen emperor Friedrich II had issued a charter that elevated the Guelfs' Braunschweig territories to the rank of duchy, and as a testament to its significance he had sealed the charter with a bulla of gold. The period after 1235 was much more difficult to write about because there were far more documents and because those documents were scattered in archives and cartularies in many locations. But in a sense, with Calenberg and Celle now formally united and established as an electorate, that later period no longer mattered. Worse, with the new standards of documentary proof then being established by Jean Mabillon and the Maurists, Daniel Papebroch and the Bollandists, and Lodovico Muratori, whose history of the House of Este would appear in Leibniz's lifetime, Leibniz was acutely aware of the rigor with which he needed to document his sources. So Leibniz formally stated to his patrons that as compensation for ending the Guelf history in 1235, he would embellish the work with the two preliminary dissertations. This, he assured Ernst August and his privy counselors, would make the history a real work of scholarship that would appeal to scholars across Europe. Leibniz's work would be comparable to what Aventinus had done for Bavaria and what Carlo Sigonio had done for Italy in the sixteenth century. The preliminary dissertations were not invented then; Leibniz had been working on them for a year and a half. In fact, for these formal announcements Leibniz recycled much of the language he had formulated in the "Entwurf" of 1691 and the March/April letter to Eyben.

In three documents distributed in late June and early July 1692, *Protogaea* was presented in a form nearly identical to that of the drafts of winter 1691. The remains of marine animals, sea shells, *glossopetrae* (also known as *Natterzungen*; he used the German in the otherwise French "Histoire de Bronsvic" but a French phrase, *langues de serpens*, in A.I.8, #8, to Otto Grote) as reported by travelers to Malta, the remains of other unknown animals from the Baumann and Scharzfeld caves (simply "Harz caves" to Grote), as well as the metallic forms of fish imprinted in shale at Osterode ("our mines" to Grote). All of these conspired to suggest that a large part of Lower Saxony had once been covered by the ocean. All were also explicitly mentioned as the topics of the first preliminary dissertation in the letter to Eyben of March 1691, as well as in the L^2 manuscript "Entwurf der Welfengeschichte." New to the 1692 texts is the addition of a four-sentence introduction to the transformations suffered by the land itself: floods, ruined mountains, subterranean fire as reproduced in chemical laboratories and resulting in new knowledge about metals and minerals. These sentences seem to have been informed by his reading of Nicolas Steno. Steno also seems to have been the source of Leibniz's mention of the *glossopetrae* as having belonged to "large fish, called in Latin *canes carchariae*," that is, sharks' teeth. These latter topics (subterranean fire and *canes carchariae*) appear only in the longer "Histoire de Bronsvic," being omitted from the "Petite Idée," also sent to Grote, as well as from a discussion of sea incursions that rounds out the *Protogaea* paragraph. Thus, some new details have been added, but the first preliminary dissertation as envisioned in mid-1692 was essentially similar to Leibniz's initial conception in early 1691.

A similar conclusion can be drawn by comparing the versions of the second preliminary dissertation, *Migrationes Gentium*. In all cases, the discussion follows immediately upon that of *Protogaea*, and in all cases Leibniz mentions first Hermann Conring's speculation that the first inhabitants were giants and then, more or less later, the evidence of burial urns. Furthermore, all three cases invoke the harmony of languages as a lead-in for the main discussion of the earliest migration of the Saxons into the region, the main event of the second preliminary dissertation. Here the versions of 1692 themselves diverge in their presentation, and they diverge as a set from the "Entwurf" and from the letter to Eyben of early 1691.

In the letter to Eyben, Leibniz discussed the hypothesis that the Germanic nations had come from Scandinavia as advanced by Olaf Rudbeck, Georg Stiernhielm, and Bengt Skytte, who argued on the basis of ancient

Gothic preserved in the *Codex Argenteus Evangeliorum*. So strong was Leibniz's engagement with the Swedish scholarship in the March 1691 letter to Eyben and throughout the correspondence spanning the 1690s that Aarsleff asserted, "The need [Leibniz] felt to disprove this doctrine [that the Germanic nations had come from Scandinavia] would seem to have given strong and repeated impetus to his own linguistic studies."[35] Yet already in 1692 Leibniz's thinking on the matter had advanced to the point that he was prepared to draw conclusions and reverse the table on the Swedes. Germanic origins, or at least the origins of the Germanic nation's most significant branch, were not Swedish but Lower Saxon.

Leibniz knew that the peoples of modern Europe were not indigenous to Europe. In successive stages in human prehistory and continuing into the historical era of the Persians, the Greeks, and the Romans, tribes of peoples migrated westward from the far side of the Black Sea. In the "Histoire de Bronsvic" he articulated the narrative he intended to develop.

"Europeans come from Asia," he stated tersely. Nearly all the peoples of Asia were descended from one of two primitive groups, Arabs and Scythians. Even these two nations were ultimately of the same race, as holy scripture recalled and the harmony of languages confirmed. "The Germans come from Scythia." Although they were now scattered to distant lands, remnants of their ancient vocabulary were preserved in the Persian language, "where there are a number of German [*Allemands*] words. Then these same Germans [*Germains*] moved west, occupying the lands from the Black Sea to the Baltic and they expanded into Scandinavia (that is to say in Sweden and Norway as well as Denmark), where they were known to the ancient Greeks under the name of the Hyperboreans, but known to their neighbors as Saxons."[36]

Those belonging to the Hyperborean/Saxon nation who did not join the great westward migration but remained between the Black Sea and the Danube River were termed by the ancient Greeks as "Scythians" proper. From this Scythian remnant, a second colony, the Goths, was sent north to the Baltic Sea. Goths, Getes, Gutones—Leibniz equated all three names—found Scandinavia already occupied by their Saxon cousins, so they remained on the coast of Sweden and did not invade the interior. Soon they left again and rejoined other Gothic types on the frontiers of the Roman Empire. The *Codex Argenteus*, of Ulfilas's translation of the Christian Gospels, preserved the Gothic language.[37]

While the Goths migrated over land, the Saxons learned to sail and became "the pirates of the ocean and the first maritime masters of the great North

Sea." From the Saxons were descended the Frisians and Chaukians of the North Sea coast, and they intermingled with the more ancient Cimbri (whom Leibniz equated with the Cimmerians), located between the Celts of Gaul and Germania. Celts, Cimmerians, Germans—although they differed from one another as Latin differed from Greek, Leibniz drew on the late antique historian Jordanes, saying, "They all came from Scythia and the Black Sea region, one after another, like bees in successive swarms leaving from the same hive." First the Cimmerians, then the Teutonic nations in Saxon and Gothic waves, then peoples more remote—Huns, Wends, Sarmatians, Slavs, and most recently "the Tartars, who come from inner Scythia." Despite the turbulence of migration, some evidence survived, including remnants of a Germanic language still spoken in an enclave of Crimea, just as a Saxon community existed in Siebenbürgen, Transylvania.[38]

The narrative Leibniz initially proposed in the winter of 1691 was more tentative than the bold assertions he made in the summer of 1692. Here we have a display of Leibniz's irenic mind. Or as Leibniz's biographer Antognazza put it, "What we appear to have here is further evidence of the incapacity of an encyclopaedic mind to resist connecting everything with everything else and the consequent tendency of all his projects ultimately to snowball into unmanageable proportions."[39] To prove this bold hypothesis would require a lot of evidence. Little did Leibniz know that he would live to see his linguistic hopes dashed on the shoals of historical Pyrrhonism and the wreckage swept into the vortex of irenicism.

Building the Network

(Winter 1691–Summer 1692)

Like a late-seventeenth-century armillary sphere or orrery—bewildering astronomical models that depicted the simultaneous orbits of the planets about the sun and the moons about the planets, all in harmonious movement scaled in time—the synchronous multi-dimensionality of the Leibniz correspondence bewilders and dazzles the scholar. Indeed, this has been one of the principal challenges in crafting this book. The letters are written in seventeenth-century neo-Latin and archaic French, neither being the mother tongue of Leibniz nor many of his correspondents. The exchanges on linguistics are buried in letters that might raise a half dozen or more topics. Once I had identified Leibniz's specific interests in historical languages, the major players in his linguistic inquiries, and the course of each of their exchanges, then came the difficult part: to impose a linear narrative on what was essentially a circular and peripatetic turning of exchanges.

To truly appreciate the orrery, one must fix one's attention on only one set of movements at a time. The moons about Jupiter, for example, or the moon about the earth relative to the sun (and when do we get to see an eclipse?). So with Leibniz's correspondence, it was necessary to reverse engineer it in order to examine the working parts. This chapter, therefore, covers the period from the "Entwurf der Welfengeschichte" (January 1691) to the "Histoire de Bronsvic" (June 1692)—four times. Each section addresses a separate wing of Leibniz's rapidly growing correspondence network: a Hanoverian and northern German wing; a pseudo-Jesuit network with branches in Poland and France; a central German wing of Ludolf, Paullini, and Tentzel; and an Italian wing centered on Magliabechi at Florence and extending to Rome. All these exchanges—as well as many others on nonlinguistic topics—were taking place simultaneously. And beyond each wing lay a whole other network in its own right composed of many individuals who were beyond Leibniz's reach. During this year-and-a-half interval Leibniz went from initial euphoria at having tailored the Guelf history to suit his interests to a growing

awareness that acquiring the necessary data would be much more difficult than he anticipated.

Also during this interval, Leibniz became keenly interested in reestablishing contact with Philippe Grimaldi, the Genoese Jesuit of China he had met at Rome in the summer of 1689. As Leibniz came to understand his need for samples of Asiatic languages, he urged Grimaldi to collect those for him during his travels back to China. But where was Grimaldi? Only several months after the fact did Leibniz learn that he had been rebuffed at Kadino, on the border of Muscovy. To his various correspondents Leibniz touted his acquaintance with the world-traveling Jesuit even as he enlisted their assistance in learning his location and itinerary. Therefore, in addition to the four sections depicting how he built his network of linguistic correspondents, this chapter is bookended by two letters that Leibniz wrote to Grimaldi, the first in May/June 1691, the second in March 1692. Although he requested essentially the same knowledge from Grimaldi, the way he expressed that request was transformed as Leibniz increasingly turned his attention from Europe toward central and far eastern Asia.

Starting Close to Home: Chilian Schrader and Gerhard Meier (April–May 1691)

Upon writing the sketch of the preliminary dissertations that he sent to Huldreich von Eyben in a letter dated 26 March / 5 April 1691, Leibniz immediately began to inquire about the prehistory of local Lower Saxony. The first person he asked, apparently, was Chilian Schrader, archivist for the duchy of Celle. Leibniz and Schrader had been exchanging letters for some time already, and if we back up a few months in our chronology, we can identify approximately when Schrader began to collaborate with Leibniz on the preliminary dissertations. In the fall of 1690, for example, Schrader passed to Leibniz some information about the Carolingian dukes Ecbert and Otton—items that pertained to the Guelf history—but with no mention of language.[1] In mid-February 1691 Leibniz traveled to Celle, where Müller and Krönert report explicitly that Leibniz met with Schrader.[2] Shortly after that visit, Schrader sent Leibniz a discourse on the genealogy of Anhalt and a copy of a document from Gandersheim,[3] followed by Reiske's *History of Wolfenbüttel*.[4]

Within days of the second letter to Eyben, however, evidence of the preliminary dissertations appears in the correspondence with Schrader. A letter from Schrader from the beginning of April 1691 offers evidence that

Leibniz had asked Schrader whether he knew of anyone in Lower Saxony with knowledge of prehistoric material objects, whether *naturalia* like fossils or cultural artifacts such as burial urns from the pagan era. Schrader volunteered to Leibniz that friends at Lüneburg knew something about *glossopetrae*, and his brother at Helmstedt was familiar with the "marques des animaux in Baumans Höhle."[5] Schrader also mentioned a certain official from the Wendland who had dug up a number of burial urns.

It cannot be confirmed that the catalyst was Schrader's report, but at about the same time Leibniz wrote a reminder to himself to ask Gerhard Meier about "urnae in Bibl. Brem." Meier would become one of Leibniz's most important linguistic correspondents through the 1690s and down to Meier's death in 1703. From 1691 alone, eighteen of their letters have been edited in series 1 (*Allgemeiner Briefwechsel*) of Leibniz's *Sämtliche Schriften und Briefe*, plus another three documents in series 2 (*Philosophischer Briefwechsel*). As with Schrader, the exchange of letters began before Leibniz took an interest in language. Leibniz and Meier had already been carrying on a rapid correspondence since September 1690, when Meier visited Hanover and met Leibniz. Upon returning home to Bremen, Meier had initiated that correspondence with a follow-up letter in Latin.[6]

Their initial discussion concerned the Cartesian philosophy, and Meier served as an intermediary between Leibniz and Leibniz's former mathematics mentor at The Hague, Christian Huygens. They exchanged books, Meier borrowing a manuscript copy of Thomas Campanella's *Monarchia messiae* (1633) and Leibniz asking for a history of the monasteries in Hanover that he had been trying to get hold of since his return from Italy, once he learned that Meier had access to the volume in the Bremen library. Now, in a letter dated 10/20 April 1691, Leibniz asked about other items in the Bremen library, namely, burial urns: "I hear that in your public library there are certain Urns found in your region. I ask that you instruct me a little about them, whether they are ancient monuments, artifacts of tumuli, etc. If you or any friends know anything about found bones of unknown brutes, glossopetrae, petrified wood etc., I ask to be instructed about these too."[7] It should be noted that this was not the only nor even the chief topic of this short note to Meier. Leibniz noted that his and Meier's interests seemed to be converging. He acknowledged the receipt of a letter from Huygens that Meier had forwarded (the principal reason for this note). He mentioned Pierre Daniel Huet's transfer to the bishopric of Avranches in Normandy and Schweling's polemic against

Huet's anti-Cartesianism,[8] and he thanked Meier for sending manuscripts from the library. Although the longest paragraph, the inquiry about urns is also the last in the note.

At Leibniz's request, Meier did ask friends who were out of Leibniz's reach about burial urns. Three months later Meier responded with a detailed description of grave tumuli and burial urns found around Bremen, including a paragraph by J. J. Kelp on a few that were engraved with "hieroglyphics" representing the sun and moon.[9] Another three months passed before Leibniz thanked Meier for the report, particularly grateful for Kelp's description of the hieroglyphics.[10] But Leibniz then returned the conversation to the theological controversies in the Netherlands and their ongoing exchange of manuscripts. Over time, the Leibniz-Meier correspondence moved into the realm of Low Saxon history and antiquities. In 1693 Meier saw an opportunity to attach his Low Saxon project to the broader Collegium Imperiale Historicum of Tentzel, Paullini, and Ludolf, proposing potential members of a working group. But it seems that it was not until mid-1695 that Leibniz and Meier began to discuss language. By that time Leibniz's international network had gathered a substantial head of steam.

Burial urns and fossils concerned the first preliminary dissertation, on the natural history of Lower Saxony, not the second preliminary dissertation, on language. Leibniz raised the topic of language with Schrader later in April 1691. Schrader had mentioned a friend in the Wendland who had dug up several burial urns. Leibniz supposed that Schrader's friend must also know something about the Wendish language. In order to organize his inquiries on both topics, Leibniz drew up a "memoire" with specific questions to be answered by Schrader's friends. Schrader indicated that he remanded it specifically to the bailiff of Dannenberg and also to someone at Harburg.[11] A response from the bailiff of Lüchow demonstrates that he sent it there also.[12] And Schrader mentioned at one point that he hoped his brother at Helmstedt had responded to Leibniz as well. That is, Leibniz used Schrader as he did Meier, as a conduit to access knowledgeable people who lay beyond Leibniz's own reach.

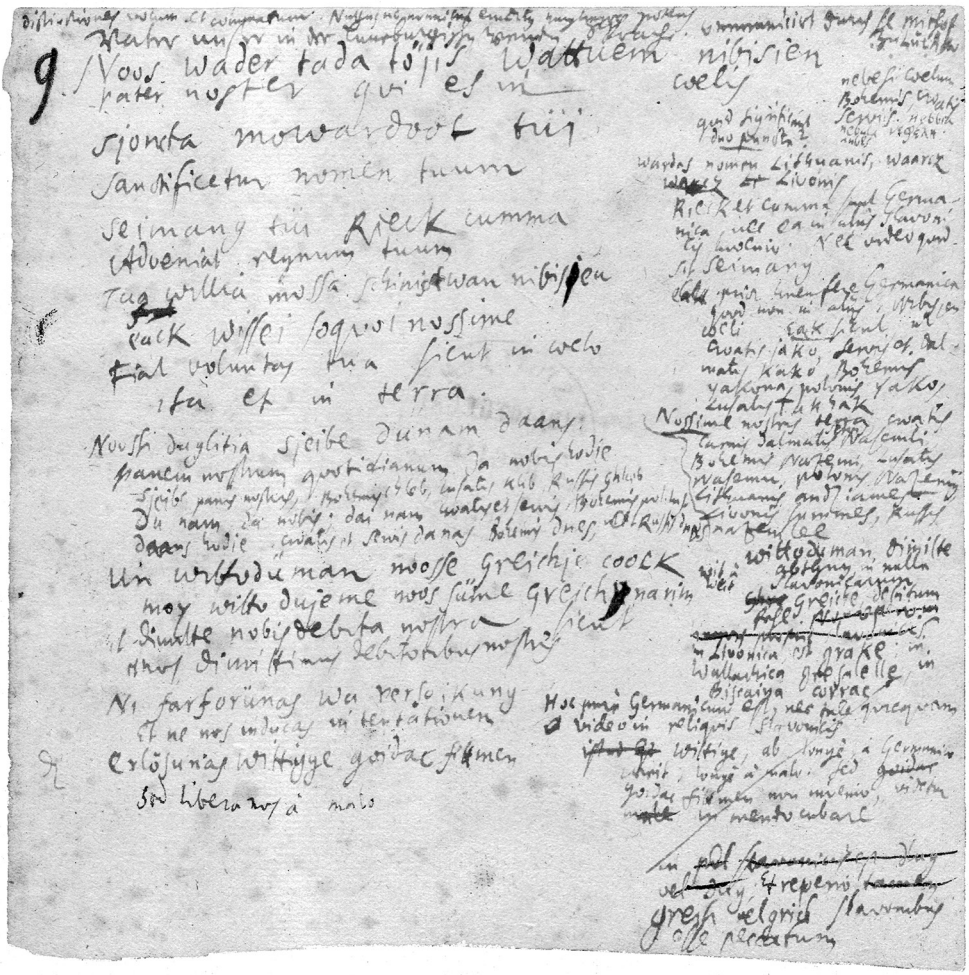
Schrader warned that it might be a while before a response to Leibniz's memoire came from Dannenberg.[13] But within three weeks he had a response from nearby Lüchow, and Leibniz saw the first results of his inquiries into language.[14] From that response we can see that Leibniz's memoire comprised nine questions. Four concerned the Wendish language, two concerned *naturalia* and other noteworthy antiquities, and three addressed burial urns found in the region. The provost of Bergen had discovered one of the urns intact,

accidentally broken it, and found bones inside. Others had been discovered during house construction. They tended to be associated with pagan locations near roads, not in natural hills but in small manufactured burial mounds.

Regarding the Wendish language, Leibniz's first question was whether any books existed in that language. Mithoff, the bailiff of Lüchow, had not heard of any, nor of any old chronicles. Two questions addressed the Wendish language in German context: What did the Wends call the Germans? (Answer: *Sjostje*.) When the Wends spoke German, how did their pronunciation differ from that of the Lower Saxons themselves? Here Mithoff offered a fair analysis. The fourth question about the Wendish language had to do with the Lord's Prayer: Leibniz asked for a transliteration of the actual vernacular pronunciation, not the ideal but as it was actually expressed. Mithoff included transliterations of this plus several other prayers as well. Editorial notes indicate that this report was the work of several individuals, including a stenographer and a Wendish informant, who wrote the Slavic-language prayers in a different hand, as well as Mithoff himself. Leibniz began to annotate the Lord's Prayer in the margin of the report, but with too much to compare, he took out a separate sheet of paper and organized a two-column chart: in the left column he wrote the prayer in Wendish, interlineated with the Latin translation; in the right column he put comparisons of the Wendish terms with cognates in other Slavic languages plus Germanic.[15] The next day, Leibniz wrote to Grimaldi.[16]

Why Grimaldi Came to Europe (August 1686–July 1689)

Philippe Grimaldi (as Ferdinand Verbiest called him, omitting his first name, Claudio) had been sent to Europe as an envoy of the Kangxi emperor of China in September 1686. A month and a half earlier, in August 1686, a delegation of the Dutch East Indies Company had appeared before the imperial court at Beijing. This delegation caused considerable alarm to the Jesuits of China. For the whole of the seventeenth century the Dutch had been on the rise both in Europe and in Malaya, Indonesia, and the western Pacific. As Dutch fortunes rose, Portuguese fortunes declined, and the Protestant Dutch made a point of attacking and harassing the Catholic Portuguese at every opportunity. They had besieged the Portuguese colony at Macao already in 1622, the Chinese and Portuguese fighting them off with cannon, whose military effectiveness made a deep impression on the Chinese. When the Japanese closed their ports to the Portuguese and other Europeans in the 1630s, the revenue that had flowed through Macao dropped dramatically. By the 1680s



Comments on the Polabian Lord's Prayer. Leibniz's notes analyzing the Lord's Prayer in the Wendisch (Polabian) language of Lüchow-Dannenberg, on the Elbe River, northeast of Hanover. The Lord's Prayer is on the left, with the Polabian interlineated with a Latin translation:

> Nous wader tada töjis Wattuem nibisien
> pater noster qui es in coelis . . .

On the right are annotations to himself, mostly noting cognates in other Slavic languages. (Gottfried Wilhelm Leibniz Bibliothek—Niedersächsische Landesbibliothek, Hanover, Ms XXIII 841a Bl. 9. Transcribed as A.I.6, #301, Bemerkungen zum polabischen Vaterunser.)

the Portuguese were thinking aloud of closing their colony at Macao altogether, just as they had recently closed their mission in Siam.

With no overland route from Grand Tartary, and with licensures granted as they were under Chinese constitutional law, Macao was the sole point of entry for missionaries into the empire. Just a few months earlier, the rector of the Jesuit college in Macao had written a worried letter to Verbiest hoping for some word or action that might reassure them of the viability of their position there. Should the Dutch gain a foothold in China, the Portuguese at Macao would be utterly ruined, and with them the Catholic mission in China. Verbiest had responded to the Macao rector's worried letter by warning the Portuguese that should they abandon Macao, they would never get back into China, and he reassured them of the advantage the Macao colony gave them over the Dutch, even if it was less profitable than it had been.

But then in August 1686 the Dutch showed up at Beijing in person petitioning for a permanent trading port in China like the one they possessed at New Batavia in Indonesian Java. The ambassador of the Dutch East Indies Company lavished the emperor with gifts, which the emperor accepted as tribute. The emperor pressed his Flemish servant, Ferdinand Verbiest, into service as an interpreter for the Dutch audience, for which the Protestants thanked the Jesuit profusely. The emperor denied their request for a permanent trading colony in China, but the Dutch felt themselves so well received that they imagined the door remained open for a more favorable response in the future.

In a letter to the Jesuit superior general at Rome, Charles de Noyelle, Verbiest explained that for several years the emperor of China had been trying to contact the Grand Dukes of Muscovy (Ivan and Peter, then under the regency of their sister Sophia) about incursions into Tartary by Muscovite soldiers and fur trappers. The emperor had sent several letters—in a variety of languages and through several routes—but he had received no response. He doubted whether any had reached their target at Moscow. But with the occasion of the Dutch embassy, "he rejoiced greatly, since he knew that he might send his letters with the Dutch legate and might be able to receive a response through the Dutch. And the Dutch themselves rejoiced even more, that by this occasion they might be able to do some service and to offer a favor." That is, the emperor had tacitly invited them to return, whereupon they might resubmit their request for a permanent trading center, this time in a stronger position by having provided some material service. "Unless," as Verbiest put it, "we had diverted their minds by some other pretext."[17]

By a stroke of divine genius Verbiest came up with a plan. Philippe Couplet was still in Europe (his story is introduced in chapter 3), where he would remain for several more years, and Grimaldi had been elected in his place as procurator of the vice-province of China. Verbiest cast about for a pretext by which the emperor might send Grimaldi to Macao, where, once there, Grimaldi might shore up the Portuguese resolve to remain in place despite their financial decline and the Dutch ascendancy. The best pretext he could think of was to make Grimaldi a courier for another set of letters to Muscovy. Time was of the essence. If the Jesuit procurator could beat the Dutch to Moscow, then the service of the Dutch would be rendered moot. Fortunately the Dutch seemed to be in no hurry, waiting until the next year even to depart China and likely to remain at Batavia for another year after that. Grimaldi, by contrast, was instructed to travel by whatever means available, including ships flagged under India or Goa despite the official monopoly held by the Portuguese *padroado*.

To Charles de Noyelle, Verbiest described Grimaldi's destination as "Europe" and "Rome." Thus, Verbiest tasked Grimaldi with three objectives: to deliver Chinese/Qing letters to Muscovy; to reassure the Portuguese and urge them to maintain their presence at Macao; and to represent the vice-province of China on official business at Rome. But Verbiest urged Noyelle that in the event that Grimaldi did not survive the voyage to Rome, the letters he bore should be forwarded as quickly as possible to Moscow.

Grimaldi did survive the voyage to Rome. This is why Leibniz was able to meet him there in July 1689. Ironically, though, Grimaldi was no longer in possession of those imperial Chinese letters. At Goa he had handed them over to a Polish colleague, who carried them through the Persian Empire by way of Isfahan to Astrakhan, above the Volga River delta on the north shore of the Caspian Sea. From Astrakhan a second Polish Jesuit carried them to Moscow, where they were received by the Ministry of Embassies on March 18/28, 1690. The Dutch letters were shipped from Batavia to Amsterdam, from Amsterdam to Archangel, and from Archangel to Moscow, where they were delivered by Abraham Goutman on January 2/12, 1690, ten weeks ahead of Grimaldi's. An even greater irony is that had Grimaldi retained possession of the letters instead of short-cutting them through Persia, he would have beat the Dutch by four or five months. But the greatest irony is that in September 1689, at just about the moment that he stood at Kadino waiting for his visa application to be denied, the purpose of those letters was fulfilled when the

Qing signed a treaty with an ambassador of Muscovy in Trans-Baikal Siberia at Nerchinsk.

Leibniz's First Letter to Grimaldi (May/June 1691)

Grimaldi had actually departed Rome before Leibniz. Traveling via Vienna and Warsaw, where he picked up letters of recommendation from the Holy Roman emperor and the king of Poland, both allies of the czar in the ongoing wars with the Ottoman Empire, Grimaldi was the latest in a series of Jesuits who attempted to cross overland through Muscovy to China, only to be denied a visa at Moscow. In April 1690 Leibniz learned that Grimaldi's visa request had been rejected and that Grimaldi had been forced to turn back.[18] The Bollandist Daniel Papebroch confirmed the news of Grimaldi's rejection,[19] and Leibniz forwarded Papebroch's confirmation to Antonio Magliabechi.[20] When Leibniz wrote to Grimaldi on 31 May / 10 June 1691, he inserted the letter into the Jesuit network through Papebroch.[21]

The Jesuit mission in China was a century old by the time Leibniz seriously engaged it in the 1690s. Leibniz's correspondence with the Jesuits was not chiefly concerned with language. Although he did request specific information on Tartaric languages from the Jesuits in China, his overriding concern was technological exchange, particularly the bringing to Europe of practical Chinese techniques, gadgets and machines (abacus, windmills), and medicinal herbs. The Jesuits, of course, had their own agenda, and Leibniz made no attempt to alter that agenda. Instead he piggy-backed his linguistic interests onto already existing concerns, hoping that in the course of their labors and travels the Jesuits might keep an eye out for vocabularies and eventually forward them on to Leibniz.

Leibniz's May/June 1691 letter to Grimaldi reflects these broad interests. He expressed consolation for Grimaldi's disrupted itinerary. He reminded Grimaldi that he hoped the Jesuits would send useful Chinese knowledge to Europe, just as they conveyed European technologies to China. He offered news of Andreas Müller's work on a *Clavis Sinica* as well as the Old Testament criticism of Richard Simon and Isaac de La Peyrere, suggesting that Chinese chronology might help adjudicate the age-of-the-earth controversy. Only toward the end of the letter did he turn to Tartaric nations and their languages. He suggested that Grimaldi was in a position to augment the map of Grand Tartary recently published by Nicolaas Witsen. Leibniz had only just learned of the existence of Nicolaas Witsen's new map of northern and eastern

Asia from Nova Zemlya to China (1687); he did not even know its proper title, nor had he seen it. But he assumed that a world traveler like Grimaldi must have had at hand all the latest resources. Leibniz then requested that Grimaldi send whatever artifacts he might collect in his travels.

> And since all languages of Europe and Asia from the Britannic Ocean to the Indus River appear to flow from one source, . . . if you could find for us a few things (such as, the Lord's Prayer), written in languages of many of the peoples of the East Indies and the region of Scythia; so that we may see how it [that river/source] has spread out. For between the separated languages there often appears to be no connection except what is transferred through regions. It would also be useful to receive a delineated Alphabet of those peoples who have it. From languages we can judge the best of the first origins of peoples. Perhaps also any ancient inscriptions, manuscripts, songs, coins, whence light may be shed on antiquity.[22]

The letter concludes with a final reminder about the imbalance in exchange, that such work would benefit posterity, and that many in Europe were watching his activities.

Leibniz's Jesuit Network Expands (Fall 1691)

With this letter to Grimaldi (31 May / 10 June 1691), Leibniz announced his linguistic interests to a second set of correspondents, Jesuit mathematicians. Like the Hanoverian network (Schrader, Meier, Eyben), which he first drew upon for his inquiries into *Migrationes Gentium* during the spring of 1691, his Jesuit network already existed. Shortly before his grand tour of 1687–90, he had corresponded with Papebroch, and Leibniz and Papebroch continued to correspond during Leibniz's travels in Italy. In Italy Leibniz used his mathematical interests to meet other Jesuits—mathematics was the basis for his meeting Grimaldi in the first place—and after his return to Hanover Leibniz maintained correspondence with the Italians he had met, writing directly to Magliabechi (a librarian, not a Jesuit) at Florence and Laureati (a Jesuit who himself would later travel to China) at Rome, and they in turn forwarded information from contacts of their own to Leibniz.

Simon de La Loubère

As luck would have it, in the fall of 1691 Leibniz's Jesuit network expanded further when Simon de La Loubère and Adam Kochanski, separately and unsolicited by Leibniz, rekindled correspondences that had long since languished.

But the reader may have noted that two of these correspondents, Magliabechi and Simon de La Loubère, were not in fact Jesuits. Admittedly my term *Jesuit network* is a misnomer. Nevertheless, Leibniz seems to have thought about his correspondents in relatively discrete sets, setting particular individuals in conversation with some sets but not with others and discussing subjects and employing terminologies common within one set but omitted from others. In Leibniz's mind, Magliabechi traveled with the Italians he knew from Rome, many of whom were Jesuit mathematicians, just as La Loubère was part of a set of transalpine Catholics who seem to have constituted a fairly discrete set in Leibniz's mind.

A word must also be said about mathematics. In the early twenty-first century, so closely attuned as it is to digital technology and statistical probability, it is easy to forget the still extraordinary quality of mathematics in the seventeenth century. Was Descartes's true significance as a geometrician or as a philosopher? When Ferdinand Verbiest issued a call from Beijing to work the harvest in the mission field of China, he called for men more expert in mathematics than in the care of souls. Although we call it the Scientific Revolution (the term is coming back into circulation despite its thick historicization at the end of the twentieth century), to Verbiest the seventeenth century remained an age of philosophy. In an open letter to his Jesuit colleagues in Europe published in the *Mercure galant* in 1681, Verbiest had pointed out that unlike in Europe, in China mathematics was the key to the hearts of the people. In most Jesuit colleges mathematics was often neglected as the dregs of the sciences and dry knowledge of little use, wrote Verbiest (in the post-Cartesian age); students and faculty found philosophy to be more relevant. "But the Chinese are not of this sentiment. They have a particular taste for Mathematics, and nothing charms them as much as Astronomy, Optics, and Mechanics." The emperor himself discussed the mathematical sciences with familiarity, and the Christian religion was well received thanks to the astronomy associated with it. "And this is why I would exhort those who would come to help us, to be thoroughly acquainted with long-distance Telescopes, Microscopes, Pendulums, and everything that makes Mathematics interesting and agreeable."[23]

Thus, to be an amateur mathematician, as someone who puzzled with numbers in his leisure hours, was somewhat extraordinary and a qualification for membership in a distinct set of scholars. The Jesuit order in particular, with its strong orientation toward higher education in the post-Counter-Reformation era, fostered an atmosphere that enabled some individuals so

inclined to cultivate a mathematical interest in addition to their regular pursuits of ordination and theology. This interest was the principal factor, according to Verbiest, in the Jesuit order's winning most-favored-nation status under the Kangxi emperor of the Qing dynasty. It was Leibniz's interest in mathematics, indeed his accomplishment at the very highest level, that opened the door to the Jesuit world of learning despite his heartfelt Protestant convictions and despite the Jesuits' equally heartfelt anti-Protestantism.[24]

Thus, even though Simon de La Loubère was not a Jesuit, Leibniz evidently perceived him to fall into that category for three reasons. First, his uncle Antoine de La Loubère was a Jesuit and a mathematician of some renown throughout the Society. Second, Simon de La Loubère was himself a mathematician of such accomplishment that he brought home with him from his embassy to Siam a new or simplified method of creating magic squares. Third, his embassy to Siam was escorted to Indochina by the Jesuit Guy Tachard, who had already made the voyage once and who was blazing a trail for French merchants to move into territory recently abandoned by the Portuguese. That Leibniz clearly associated La Loubère with Jesuit mathematics is evident in the way he dropped La Loubère's name to Kochanski, as if a line on a not anti-Catholic résumé to break the ice with Kochanski.

In June 1691 La Loubère had sent three copies of his report on his embassy to Siam, although Leibniz would not receive these until the following January.[25] In October 1691, having received no acknowledgment from Leibniz, La Loubère followed up with a second letter that effectively established the correspondence.[26] Leibniz seized the opportunity to announce his Italian tour ("You see that I traveled at the same time as you, if the small can be compared to the great") and his acquaintance with Grimaldi.[27] As he had expressed to Grimaldi in person in 1689 and again in his letter of May/June 1691, and as he would continue to express to his other Jesuit correspondents at every opportunity, Leibniz complained to La Loubère that while the Chinese profited from European technology brought to Beijing by the Jesuit mathematicians, the Europeans were getting nothing in return. "Effectively, the Chinese have learned a lot about our sciences by means of these Fathers, but Europe has not received any advantage from them, and we stand to lose the superiority we now have."[28] Initially Leibniz suggested that reciprocal exchange should include Chinese medicine and other practical techniques. Now that the preliminary dissertations to *Origines Guelficae* were under way, Leibniz added that linguistic and ethnographic knowledge also would be welcome. To Grimaldi in May/June 1691 Leibniz speculated that Eurasian languages spoken

as far away as the Indus River shared a common origin. By September 1691 his thinking had advanced somewhat: while the Eurasian languages seemed to share a common origin, they also seemed to be categorically different from those of the Far East, the Americas, and Africa.[29] This judgment he repeated in October to La Loubère.[30]

In January 1692, when La Loubère's report of the embassy to Siam finally reached him, Leibniz placed a specific request: If, perchance, La Loubère had brought back with him a dictionary of Siamese or Balinese, would he translate the Lord's Prayer into those languages?[31] Leibniz expressed frustration at the difficulty of getting specific and reliable information about the peoples of Asia despite the number of Europeans who traveled there. "It is too bad that Fr. Grimaldi who, being far away, as skillful as he is honest, has not taken care to record some information of oriental affairs, like those that you have given us, despite having been there a long time," Leibniz wrote.[32] Indeed, it was the specificity and detail that made La Loubère's *Du Royaume de Siam* (1691) such a valuable report: "Whereas most authors produce a lot of superfluous things plastered over with a pretty facade, you give us solid facts and inquiries of consequence. . . . Other travelers seek what is marvellous, but you [seek] the details, Sir, and this is what it means to think, because one admires what one does not understand."[33]

Adam Adamandus Kochanski

In much the same way as the French envoy La Loubère, Adam Adamandus Kochanski, a Polish Jesuit, wrote to Leibniz unsolicited. Kochanski and Leibniz had exchanged letters twenty years earlier. Now, in his capacity as royal mathematician and librarian, Kochanski wrote to Leibniz asking for the complete reference to a work Leibniz had cited in the *Acta Eruditorum* so that Kochanski could purchase it for the Polish library.[34]

Leibniz responded with a few paragraphs on mathematics, and then he turned to the two preliminary dissertations. First, he established his acquaintances with Kochanski's fellow Jesuit of the Far East, Grimaldi, and La Loubère, who had also recently traveled there. This was in December 1691. Although he had received La Loubère's October letter, Leibniz had not yet received La Loubère's report on the mission to Siam, but he used La Loubère's name anyway. And speaking of reports from Asia, as he had told both Papebroch and La Loubère, so too Leibniz told Kochanski of his insistence that Grimaldi turn the exchange of knowledge with China in Europe's favor. Although in June Papebroch had told Leibniz that Grimaldi was in Persia,

Leibniz continued to believe that he had sailed from Portugal and hoped that he had by now (December 1691) safely arrived in China.[35]

This résumé of his Jesuit contacts established, Leibniz then inquired specifically about the topics of his two preliminary dissertations. First, given the famous curiosity of the king of Poland, Kochanski must have known something about the land route across Muscovy to China, and therefore also something about the nature, geography, and peoples of northern Asia. Leibniz had heard reports of a people whose language had an affinity with Hungarian and whose range extended from the province of Juhra beyond the Caspian Sea all the way to the Don River and the Sea of Azov. Hungarian was known to share affinities with Finnish; Leibniz wondered whether a similar analogy could be drawn between the Latinate languages Lithuanian and Wallachian. He hinted that Kochanski might press his Jesuit colleagues to make observations about the languages encountered during their travels through Scythia. Specifically, one would expect it to be relatively easy to obtain the Lord's Prayer in all the languages under Muscovite dominion between the River Ob and the Black and Caspian Seas. Furthermore, translators on the west side of the Caspian Sea might trace the peoples scattered between the Persian, Muscovite, and Ottoman Empires, while those on the east side of the Caspian could sort out those divided between the Muscovites, the Persians, and the Mongols all the way to China. "This knowledge would bring much light regarding the Origins of peoples," Leibniz wrote. "For it is likely that many of the peoples now in Europe originally came from the North."[36]

Finally, as evidence that the two preliminary dissertations were still closely related in Leibniz's mind, he concluded the letter to Kochanski with an inquiry about the location and contents of mines in Poland.

Kochanski turned out to be an enthusiastic informant. Although he did not travel with the royal court but remained resident at Warsaw, he had been present when Grimaldi came through in 1689 on his way to Moscow: "I remember Grimaldi was interrupted by the king as he spoke certain Tartaric words which the king, being learned in our European Tartaric, declared to be entirely different from this. Except for the word signifying *Horse*, if I remember correctly; *Moran* or *Morak* they recognized as common to both idioms."[37]

Leibniz was thrilled by this report. What he had neglected to inquire of Grimaldi at Rome, for which he chastised himself, the king did not neglect. To the *Moran*/*Morak* cognate Leibniz added the word *Mare* for "horse," a term he found common to the languages of the Germans, the ancient Gauls, and even the Britons of Armorica and Wales. "So it appears that the same sound,

its meaning retained, reaches all the way from the Far East to the Islands of the Western Ocean."[38]

From the royal court of Poland, a positive clue pointed toward a Scythian origin for the European languages. Even better, the king of Poland himself was genuinely interested in Tartaric peoples and languages, a western branch of whom numbered among his subjects. Kochanski forwarded Leibniz's queries to Carlo Maurizio Vota, a fellow Jesuit who served as court theologian to King Jan III Sobieski, and Vota read lengthy extracts of Leibniz's letters to the king himself. Thus, through Jesuit intercession, Leibniz had a line to the king of Poland, the famous strongman who had swept in to rescue the Holy Roman Empire from the Ottoman onslaught when Vienna had lain under siege in 1683. Now, in the wisdom of age, Jan III cultivated knowledge of his extensive domain and the regions beyond. The king himself had ordered a copy of Nicholaas Witsen's 1687 map of Grand Tartary, a rare and expensive item that Leibniz had heard of but thus far had been unable to obtain.

In addition to Witsen's map, the royal court of Poland possessed another table of geographical data (i.e., named locations only, not summarized as a graphical map), this one describing an overland route from Moscow to Beijing. Kochanski wrote to Leibniz, "Our King has a Description of the Route from Moscow through Siberia, Mongolia, etc., to China, which Table was prepared from a Report of a Muscovite named Nestorius, who made the first legation to Peking and afterward was in Poland. But this Table has no notes of Geographic Latitude and Longitude."[39] Although Kochanski did not sensationalize it, through his other sources Leibniz learned that this tabular report was classified information. In addition, the Polish court had also acquired a graphical map of Muscovite Siberia. Kochanski's "Nestorius" was actually a Muscovite envoy named Nikifor Venyoukov, who twice had crossed the width of Asia from Moscow to Beijing, once in the 1670s as secretary to the Muscovite ambassador Nikolai Gavrilovich Spathari (1636–1708) and again in the 1680s, this time in haste, to announce the sending of a plenipotentiary ambassador and to avert further escalation of the border skirmishes in Manchuria and Siberia. After returning from the Far East, Venyoukov had been sent west to Poland, and there, apparently inadvertently, he had leaked state secrets. During an evening of heavy drinking, someone at the court had somehow stolen and copied Venyoukov's map of Siberia. Leibniz had actually heard of the existence of this top-secret itinerary a few months earlier, and he would read a third report of it the next year in Philippe Avril's report on his journey through the Caucasus and Muscovy.[40]

Given these interests that paralleled Leibniz's, King Jan III was able to answer some of Leibniz's questions. Regarding the hopeful link between Hungary and Juhra, the region beyond the Caspian Sea where Kochanski vaguely recollected a Hungarian missionary-envoy-prisoner who had been able to communicate in his native language, the king said there was no evidence of such a linguistic connection. The king did say that the pronunciation of words in the Lipka Tartaric language, spoken within his jurisdiction, was similar to the pronunciation in languages spoken further east, in Grand Tartary. And, just as Leibniz, for his own linguistic reasons, was hoping that Grimaldi might find an overland route through Persia and Grand Tartary to China, King Jan III was working toward opening such a route as well. In alliance against their common enemy, the Ottoman Empire, the Polish king cultivated diplomatic relations with the shah of Persia. Urged by Antoine Verjus at Paris, King Jan III had written a letter to the shah requesting that a new, more practical route be opened for Grimaldi and his company of missionary priests.[41]

A Formal Request for Languages Takes Shape (March 1692)

Having learned from Kochanski that Grimaldi was not at sea but instead traveling across Asia after all, Leibniz seized the opportunity and wrote simultaneously to both Jesuits, not only requesting specific information about Asiatic peoples and languages but even instructing them on how to obtain it. It was then, in March 1692, one year after embarking on the two preliminary dissertations to *Origines Guelficae*, that a formalized request for Asiatic languages began to take shape.

Given the king's curiosity, Leibniz hoped that knowledge of northern Asia might be facilitated through Polish sponsorship. Apparently with a map of Asia before him, Leibniz drew up a wish list of groups from whom he wanted Lord's Prayers. This statement constitutes Leibniz's first full request for Asiatic languages—the peoples of whom he wanted knowledge, the kind of knowledge he wanted, and the means by which he imagined such knowledge might be acquired. "I would like [the Lord's Prayer] to be obtained in the languages of the Tartars of Perekop, Calmuckia, Astrakhan, Kazan (I must not overlook also the two who are called Nogaies), Kustukof and Bashkir, whom I see mentioned on the Volga, and beyond as for example those of Tscherlukordenses, and above these, I don't know which Tartars of Schagredkenos and Migralenses."[42] Beyond these, Leibniz wanted language samples of all the Tartaric groups in the region "to the right of the Circassians and Ceremises [and] to the left of the Siberian Samoyeds," that is, between a line that could be imagined

from the North Caucasus to Kazan in the west and to the far side of the Urals in the east. And that was not all. He also requested language samples from groups even farther east, "of Mongolia [and] Uzbekia, who on the contrary are counted among the Tartars," and from still others whose territories were more or less randomly cut through by the borders of the Muscovite, Persian, Indian, and Chinese Empires. Later in his linguistic investigations Leibniz would draw up a list of terms that were serviceable for comparison across languages, but in early 1692 he believed the easiest and most consistent method was to get translations of the Lord's Prayer in the many indigenous languages. "These may be sought," he suggested, "in the Markets of the Black and Caspian Seas, in the city of Moscow, in Tobolsk of Siberia, in the city of Kazan or Astrakhan, in Samarkand (if there are any there), in Isphahan, and in other principal places, at the seat of princes or in commerce with the nobility of nations, through interpreters, through merchants, through Jews and Armenians." The traveling informant, however, must take care to distinguish native speakers from those who had acquired the language in question. For example, Leibniz had heard that in Siberia already in the late seventeenth century Russian was well on its way to supplanting the indigenous languages.

This request to the Polish court through Kochanski is basically what Leibniz wrote to Grimaldi that very day, March 11/21, 1692.[43] However, before delving into that very complex letter, it will be useful to look at two other correspondence networks that were operating simultaneously with Leibniz's conversation with Kochanski.

Ludolf–Tentzel–Paullini (August 1691–March 1692)

The expansion of Leibniz's correspondence network to encompass world-traveling Jesuits did not mean that he neglected his networks closer to home. In fact, at about the same time that Kochanski contacted him, Leibniz received a letter from Hiob Ludolf, from whom he had not heard in more than a year.[44] Leibniz and Ludolf exchanged several letters in the second half of 1688, but with Leibniz then traveling in Italy, the correspondence went dormant. Leibniz wrote to Ludolf upon his return to Hanover, but Ludolf did not respond. Finally, in August 1691 Ludolf reawakened the correspondence by asking Leibniz his opinion of a draft of by-laws for the Collegium Imperiale Historicum, which they had discussed four years earlier.[45] Leibniz quickly turned the letter around, commenting only briefly on the by-laws before seizing the opportunity to ask the orientalist his judgment regarding ancient Gothic and the Scandinavian languages.[46]

Leibniz had recently looked at a Welsh-Latin lexicon published in Marcus Zuerius Boxhorn's *Originum Gallicarum* (1654), and although he did not comment on Boxhorn's thesis that German, Latin, Greek, and Persian were all descended from a common mother language now extinct that Boxhorn called "Scythian," Leibniz did express to Ludolf his skepticism regarding the affinity of the Welsh and the Germanic languages. Even the words in ancient Frankish and Saxon glossaries were entirely different from modern German, said Leibniz. He granted that over time, neighboring languages could diverge into separate dialects, and after two or three mutations they might be considered entirely different languages. On account of that principle, "I do not strongly oppose those who hold the opinion that most languages in the world known to the ancients have flowed from the same source."[47] But the actual relations between languages were murky. Where others had found what they considered to be clear proof, Leibniz could only be skeptical. Even after reading Jordanes and Hugo Grotius, he still had difficulty accepting that the *Codex Argenteus* in fact represented ancient Gothic and that so-called ancient Gothic had much in common with medieval Scandinavian runes or modern Swedish. "Swedish and Danish seem to me to have more of Anglo-Saxon," he wrote. "But no one has judged these things better than you."[48]

Leibniz sent that letter to Ludolf by way of Christian Franz Paullini, Ludolf's associate in the Collegium Imperiale Historicum. It was regarding that collaborative work that Paullini had first contacted Leibniz in December 1690.[49] Over the next two years, the two would exchange two dozen letters. Once Leibniz had reintegrated himself into the Ludolf-Paullini circle, the door stood open to contact Tentzel at Gotha.

Leibniz had been following Tentzel's *Monatliche Unterredungen*, a journal of scholarly news and reviews in the form of lengthy dialogues that Tentzel wrote from 1689 to 1698.[50] This was the venue in which J. P. Ericus thought his work on the harmony of language had been unfairly treated, and although Leibniz missed that review in May 1689 because he was in Italy,[51] by the summer of 1691 he was paying attention. In July 1691 Tentzel published a letter that the Oxford mathematician and philologist Edward Bernard had written to Hiob Ludolf regarding his search for the origin of the European languages in Slavic, Persian, and Armenian. Leibniz copied out an extract of Tentzel's notice, intending to send it to Magliabechi at Florence.[52] In September Tentzel published a second notice, this time based on Bernard's *Etymologicon Britannicum* itself. Ludolf must have brought the book with him to Gotha when he was summoned in August and September of 1691 for the negotia-

tions concerning the successor of Friedrich I of Sachsen-Gotha. In a brief preface, Bernard asserted that all Western languages (with the exception of Latin, which was descended from the Aeolean dialect of Greece) originated in a common source at the Caspian Sea.[53] Bernard supported this assertion with an eight-hundred-word vocabulary list demonstrating the origins of the English and Briton vocabularies in Russian, Slavonic, Persian, and Armenian. This was a book Leibniz wanted to see.

At the time, Leibniz had no direct communication with Tentzel. Instead he wrote to Paullini, expressing interest in seeing Bernard's work.[54] Paullini in turn told Tentzel about Leibniz's interest, and Tentzel responded directly to both Paullini and Leibniz (explaining that Ludolf had lent him the book, so he had no copy to send to Leibniz).[55] Leibniz then sent a second letter to Ludolf by way of Paullini, saying that he would like to see Bernard's book. He also hinted to Ludolf that he would like a dictionary and grammar of the Basque language, and asked whether Ludolf knew anything about the language of the Siculi (supposedly descendants of the Huns in Transylvania), who might serve as a link to Hungarian-related languages in lower Scythia and toward Siberia.[56]

Thus a circle of four correspondents was formed concerning linguistic matters. Or rather, the Ludolf-Paullini-Tentzel circle had already existed before Leibniz insinuated himself into it. With Paullini, Leibniz shared information about the history of Westphalia, an assignment Paullini had taken upon himself for the Collegium Imperiale Historicum. With Tentzel he discussed coins, a collection of which Tentzel managed at Gotha. With Ludolf he shared etymologies. Like the correspondence with Gerhard Meier and like the correspondence with Kochanski and Jesuits farther afield, this correspondence became a crucial part of Leibniz's ability to assemble both raw data (in the form of language samples like the Wendish Lord's Prayer) and the latest European linguistic scholarship.

Even as he drafted a lengthy and complex second letter to the traveling Jesuit Philippe Grimaldi in March 1692, Leibniz confided to Tentzel that he expected little to come of that attempt. Leibniz expressed frustration, both at Grimaldi's having been denied entry to Muscovy and at Grimaldi's failure to respond to his requests for knowledge.[57] At Rome, Leibniz had mentioned Andreas Müller's (1630–1694) *Clavis Sinica*. Grimaldi had not heard of it. On his way either to or from Poland, Grimaldi had passed directly through Breslau, but he had turned down an invitation to meet with Müller. Leibniz acknowledged that Müller was a difficult person, but while Leibniz and Ludolf

had learned to trade off Müller's erudition with his pedantry, Grimaldi had simply hustled out of town, forgoing any exchange of knowledge.[58]

Grimaldi aside, language was clearly the means to determine the origins and connections of nations, and the Lord's Prayer was the means to determine whether the languages were smooth and continuous from one dialect to the next or proceeded in jumps. At the beginning of the seventeenth century, Megiser had collected almost fifty Lord's Prayers, together with other sacred texts, mostly from European languages.[59] More recently, Andreas Müller had increased the collection to about one hundred.[60] There were sixteenth-century reports that traces of Hungarian had been found on the lower Ob River, beyond the Urals.[61] Leibniz passed on to Tentzel Busbecq's report of traces of Gothic still spoken on the north shore of the Black Sea.[62] In addition to Kochanski's report of the Jesuit missionary captured by Tartars who had communicated in Hungarian with people near the Caspian Sea, Leibniz had found a fifteenth-century report by Aeneas Sylvius Piccolomini of a similar event involving some Franciscans.[63] Leibniz wondered what had become of the Saxon dialect in Siebenburgen, Transylvania, which had been an island of Germanic in a sea of Hungarian for half a millennium.

Magliabechi–Fantoni–Grimaldi (March 1691–June 1692)

In addition to Hanoverian servants like Chilian Schrader, Gerhard Meier in Bremen, Ludolf, Paullini, and Tentzel in central Germany, La Loubère in France, plus Kochanski in Poland, Leibniz also cultivated the connections he had made in Italy during his glorious year there in 1689–90. Chief among these Italian correspondents was Antonio Magliabechi (1633–1714), a lover of books at Florence who had his eye on all scholarly developments on that side of the Alps.
A goldsmith for the first half of his life, the young Magliabechi spent all his money and free time on books. A reading circle developed around the jewelry shop where he worked, and because the shop frequently did work for the Florentine court, Magliabechi became known to the local nobility and clergy as an amateur Latinist. He was past thirty when Michele Ermini, librarian to the Medici cardinal Giovanni Carlo, taught him Hebrew. He was forty-three when Grand Duke Cosimo III hired him as librarian, and from then his fortune improved dramatically, and so did his ability to purchase books. Ultimately his collection grew to about thirty thousand items that spilled off his bookshelves to line the rooms, hallways, and staircase of the house he rented in the Via della Scala. Shunning the life of a courtier, he cultivated the society of the Florentine youth. Curmudgeonly flamboyant in his self-neglect, he

reputedly existed on a diet of salami and boiled eggs and slept in the same philosopher's cloak he wore every day for years.[64] The *Catholic Encyclopedia* described him as "an eccentric old bachelor, negligent, dirty, slovenly, always reeking with tobacco, engaged in study at his meals, a Diogenes in his requirements."[65] The Dante scholar and University of Michigan librarian Theodore W. Koch told an apocryphal story of Antonio Magliabechi's supposed dislike of Jesuits. "One day in pointing out the Palazzo Riccardi to a stranger he said, 'Here the new birth of learning took place,' and turning to the College of Jesuits, 'There they have come back to bury it.'"[66] Koch added a tart exchange that supposedly took place between Magliabechi and "the Jesuits," a Latin insult and an English jingle. Koch did not cite his sources.

Leibniz had known of Magliabechi previously and had written to him on a couple of occasions years before his grand tour, but little had come of it.[67] When he visited Florence in November 1689, though, Magliabechi gave Leibniz a tour through the city's libraries and museums. A friendship was struck, and upon Leibniz's departure for Bologna and Modena at the beginning of December, Magliabechi armed him with a batch of recommendation letters to his colleagues in those cities.[68] A rapid correspondence between the two began at that date, and through the 1690s Magliabechi remained Leibniz's principal source of scholarly news in Italy and even across Europe and Asia more broadly.

The rapid correspondence between Magliabechi and Leibniz illustrates how the exchange of scholarly news across Europe actually functioned. There were of course the formal and public serial journals, such as the *Journal des Sçavans* of Paris, *Acta Eruditorum* of Leipzig, as well as regional journals like Tentzel's *Monatliche Unterredungen* of Gotha. These offered longer notices of books by describing and assessing their contents. There were also attempts to codify the entire world of learning by topic, such as Daniel Morhof's *Polyhistor* (first installment 1688, completed posthumously in 1707). By contrast, the Leibniz correspondence offers a glimpse of a much more rapid and multilateral exchange of scholarly news through letter-writing. Here the notices of works in progress and recently published books were very brief, rarely more than a sentence or two and frequently even shorter. Most of these works Leibniz and Magliabechi had never seen themselves, having only heard of them from other correspondents. Every few months, Magliabechi sent Leibniz an annotated bibliography on topics that he knew would interest him. Leibniz had been returning the favor to Magliabechi by sending him news of editions of ancient authors (Bernard's Josephus) and medieval documents (Schaten's

Westphalia) and treatises on theology and mathematics (Huygens's *De lumina*). Still he considered himself to be in Magliabechi's debt.

In March 1691 Leibniz attempted to pay down some of that intellectual debt by introducing Magliabechi to Henri Justel at the royal library of St. James in London. Leibniz had made Justel's acquaintance when both were in Paris in the 1670s. Justel had recently sent Leibniz a letter of scholarly news from London, and Leibniz combined some of the items with similar news from Papebroch and sent them to Magliabechi. Buried in a list of scholarly curiosities, Justel included a lone sentence: "No doubt you have seen a Map of Tartary that Mr. Witzen engraved and published."[69] Simultaneously with Justel's notice from London, Christian Huygens, writing from The Hague, had mentioned to Leibniz the publication of Witsen's map of Tartary.[70]

Witsen's map was elusive, produced in only a very small print run and never offered for general sale. The imprint dated its publication to 1687, but these notices were written only three years later. Earlier, Leibniz had confessed that he had not seen it.[71] That fact did not prevent him from passing judgment on it when he mentioned it to Magliabechi: "Nicolas Witsen, mayor of Amsterdam who wrote a famous book on shipbuilding, recently published a Map of Oriental Tartary, which is very little known in Europe. I wish he would inform us where he got what he asserts, since there are people these days who do not wish to accept such things by faith alone."[72]

But Magliabechi was way ahead of Leibniz. Not only did Magliabechi already maintain a running correspondence with Henri Justel but in January 1691 he had received his own report of Witsen's map from Gisbert Cuper, at The Hague, which was much more complete than what Leibniz had heard. The day he received Leibniz's letter, Magliabechi dashed off a response, including a transcription from Cuper that coincidentally addressed Leibniz's concerns directly. Although it was not clear who could possibly govern such a vast expanse ("so many new Kingdoms, Rivers, Mountains, Cities, Lakes, and Peoples revealed as if for the first time"), Cuper reported to Magliabechi that Witsen planned a commentary that cross-referenced ancient and modern place names and indicated the sources on which he had based his map.[73]

Magliabechi also definitively confirmed why Grimaldi had been denied passage through Muscovy. At Innsbruck on his return from Italy in March 1690, Leibniz had learned of Grimaldi's rejected visa application at Muscovy.[74] Leibniz guessed at the time that Grimaldi had headed instead over land to Lisbon and from there taken the sea route around Africa to Macao and China. In August, Papebroch confirmed that Grimaldi and a party of eight others had

crossed Poland but had been denied entry to Muscovy.[75] Leibniz passed Papebroch's confirmation on to Magliabechi, and in his March 1691 letter Leibniz asked specifically that Magliabechi give him any news that might come to him.[76] In the May response that included Cuper's report on Witsen's map, Magliabechi indicated that he did not know Grimaldi's whereabouts but that Lorenzo Magalotti (1637–1712), who was in Magliabechi's library almost every day, might. Several weeks later Magliabechi wrote again, enclosing a report specifically addressing Leibniz's questions. The source was not Magalotti but Michel-Antoine Baudrand (1633–1700), the geographer who was then serving as *conclavista* to Cardinal Etienne le Camus, who had sent the report to Magliabechi through the Medici cardinal Francesco Maria.

> Concerning the map of Oriental Tartary by Mr. Nicolas Witsen of Amsterdam, I have not yet seen it. The day before my departure from Paris I managed to get hold of a manuscript that I have been looking for for a year, taken by a very curious friend of mine from the hands of a Muscovite Ambassador in Poland after having made the Ambassador drunk (thus, with trickery).[77] This map is different in its entire manner from how they have been printed until now concerning the things of Tartary.[78] It could be that this map of Tartary by Mr. Witsen is the same one, or [it could be] a copy of one of those areas that was left last year to Mr. Blaeu in Amsterdam in order to be engraved there, and given by the Swede Mr. Sparvenfeldt,[79] a very learned man, who ought to arrive soon in this city where he already was several times; he spent several years in Moscow, and there took down many very curious notes intended to be printed, as I hope that Mr. Blaeu will do for him as soon as possible.[80]

In any event, knowledge of Grand Tartary was very difficult to obtain. The entire region was off limits to western Europeans. Baudrand explained that although there was a regular caravan that traveled up the Ob River to the Irtisch and beyond to Beijing and other places in China, "the Muscovites never allow Europeans to cross Siberia, as they call all that area of Tartary that is subject to their domain."[81] That domain extended all the way to the Amur River, the negotiated boundary that divided Grand Tartary between the Muscovite and Chinese Empires. Baudrand pointed out that the Amur River boundary was only ten days from the Great Wall itself, and he claimed to have credible knowledge that the Muscovites were contemplating war against the emperor of China to extend their holdings even farther. All of this, most especially the place names and their locations, was top secret, which is why a map of Siberia could only be obtained from a diplomat caught in a compromising

position. "These Muscovites have never at any time intended to permit a Jesuit to pass from Moscow to China by Land, especially since they already have a residence in Moscow. This is why Father Grimaldi was not able to obtain license and was forced to return to Italy, where he is at present. I saw him this past March in Genoa."[82]

Equally sensitive was navigational knowledge of a northeast passage through the Northern (i.e., Arctic) Ocean to the Pacific. Leibniz had heard that a Danish expedition had reported that the ice appeared to retreat from the land and gather around the North Pole. He asked Magliabechi about it, and Baudrand had knowledge of this expedition also. Baudrand illustrated the ice phenomenon with the discovery of the island of Nova Zemlya, north of the Asiatic mainland, by the Dutch navigator Willem Barentsz in 1596–97. *Discovery* was a misnomer. In fact Barentsz had become trapped by ice that formed in the shallow waters around land. "This was by an error of [the Dutch] Mariners who were too close to the coast instead of staying in the deep Sea, so that it became impossible for them to move forward in their voyage," wrote Baudrand. Their ships frozen in place, the mariners were forced to winter over on the mainland. Barentsz himself perished in the ordeal, but some of his crew made it back to the Netherlands the next summer. "No doubt you want more information than this, but the jealousy of the Dutch East Indies Company is so great even against their own Countrymen, that they make it a great secret, and with the arrival of a Ship they immediately confiscate all writings or logs of the voyage."[83] The English also were known to have searched for a northeast passage. Baudrand indicated that it was on account of the English and the Dutch that the Danes had entered the Arctic, and he described a Danish naval captain as "a good friend of mine" who had been to Muscovy and Archangel and subsequently outfitted a ship for further exploration in the frozen north.

Despite his attempt to balance the exchange of knowledge, in response to Baudrand's report Leibniz could only thank Magliabechi by acknowledging, "My debts are always increasing and are binding me more strongly [to you]."[84] The exchange with Magliabechi continued to be an important source of scholarly news for Leibniz, but in his search for knowledge of Asiatic peoples and languages he began to cultivate relationships with people who had closer connections to Tartary.

Tracking Down Grimaldi

Baudrand reported an actual eyewitness sighting of Grimaldi in March 1691. Grimaldi was a scion of a prominent merchant family in Genoa, and that is

where Baudrand had found him, at home. Ironically, Grimaldi apparently spent most of 1691 there, where Leibniz could easily have contacted him had he known. Or maybe not. In December 1690 Papebroch had told Leibniz that Grimaldi's modified itinerary was intended to take him through the lands of the Persians and the Uzbeks to China. In January 1691 Grimaldi was apparently at Marseilles, at least according to Joseph Dehergne, but of course Dehergne's writings, which were not compiled until three centuries later, in the 1970s, were not available to Leibniz.[85] A year after Dehergne's January 1691 source, that is, in January 1692, Kochanski seemed to confirm that source when he told Leibniz that Grimaldi, having spent June 7 (of 1691?) at Genoa, had decided to sail to Marseilles, where he had embarked on a French ship with his associates, intending to make for Smyrna or Heliopolis. From there he would take the land route to Goa.[86] Three weeks after he forwarded that report to Leibniz, Kochanski received better information from Carlo Maurizio Vota, King Jan III's court theologian. Vota reported that Grimaldi had resolved to travel through Persia, Uzbekia, and Grand Tartary to China.[87]

Ottomania, Persia, Uzbekia, Grand Tartary, China—this was more or less the medieval Silk Road. It was still early 1692, and Leibniz had not yet seen Philippe Avril's description of the roads through Grand Tartary (see chapter 4). Leibniz received more reliable reports of Grimaldi's whereabouts from Rome: Baudrand as sent through Magliabechi; Vota (recently returned to Poland from Rome) as sent through Kochanski. Leibniz decided to augment the knowledge he was receiving from his northern sources (Kochanski in Warsaw, Papebroch in Antwerp, La Loubère in Paris) with information directly from Rome. Two weeks after his second letter to Grimaldi (discussed below), which he inserted into the Jesuit network by way of Kochanski and Pellison, Leibniz wrote to Ciampini.

An officer in the papal chancery, Giovanni Giusto Ciampini (1633–1698) had founded the Accademia Fisico-mathematica in 1677, and fifteen years later he was still the Accademia's driving force. Leibniz had attended the Accademia's evening meetings during the six months he spent in Rome in 1689, and it was there that he developed the idea for his treatise *Dynamics*.[88] He had maintained a correspondence with Ciampini ever since. Now in April 1692 he turned that correspondence toward Asia and its languages, asking for confirmation of the itinerary he had learned of from Vota. "From Poland it is written to me that Fr. Grimaldi has gone to Persia, thence that he is passing by the land route through Uzbecia and those outer Tartars [on the] road to China, and that the King of Poland has furnished him with recommendations to the

King of Persia." He then added a gentle hint: "Father Fantoni knows these things better. Please greet him for me."[89]

Within six weeks Leibniz was holding a letter from Fantoni himself. A theologian at the Collegium Romanum and a professor of moral philosophy, Tomasso Fantoni (1661–1711) confirmed that Grimaldi had written while under way from Malta, and subsequently a Greek who recently had been at the Collegium Romanum had met Grimaldi at Smyrna. This had been three months earlier, said Fantoni. But Fantoni's indications of space and time seem to have been more approximate than precise. Three months earlier would have been January or February 1692.[90] But other sources indicate that already by the fall of 1691 Grimaldi had been at Constantinople, where he had taken charge of twelve Jesuit fathers whom he would deliver to various stations in the Near and Middle East while he was en route to the Far East. One of Grimaldi's fellow travelers apparently reported that on December 8 Grimaldi's party of ten departed Constantinople "on a small coastal ship" and at the eastern end of the Black Sea joined a caravan to Armenia.[91] Another eyewitness said that there were ten Jesuits—eight fathers and two brothers—who converged on Erzerum in three groups in early February 1692, only to become embroiled in a dispute with the city pasha over a cash gift/tribute/ransom, which resulted in their house being burned down in the course of a riot.[92] Thus, despite assertions from well-positioned correspondents in Rome that the Grimaldi expedition was on track, it is little short of a miracle that Leibniz's letter of March 1692 to Grimaldi actually caught up with its intended recipient when Grimaldi reached Goa in December 1693.

Leibniz's Second Letter to Grimaldi (March 1692)

It is at last time to address the contents of Leibniz's second letter to Philippe Grimaldi. Tentatively dated the same day as the letter to Kochanski with which it was sent (discussed above), the letter's complexity suggests that Leibniz must have been working on it for days, possibly weeks.[93] And the section requesting languages mirrors the phrasing in his request to Kochanski. In May/June 1691, upon receipt of the Wendish Lord's Prayer, Leibniz had written a first time to Grimaldi. Now, in March 1692, with better knowledge of where the traveling missionary was and a fuller understanding of the material he needed to write the second preliminary dissertation, Leibniz attempted to contact Grimaldi again. He repeated the request for Lord's Prayers that he had made to Kochanski, tailoring it specifically to Grimaldi's itinerary as he then understood it.

> Above all I consider it of great moment to know precisely the locations and languages of peoples, so that their origins and types [*genera*] can be better discerned. As I hear you are heading from Persia through Uzbeccia and other exterior peoples of Asiatic Tartary to China, [this] presents you with a great opportunity for making new discoveries. Whence I firmly consider it desirable that the Lord's Prayer be procured for us, in all languages in which it is possible to have it; so as to establish a common standard with which to compare them with each other. Megiser, so far as I know, was the first to collect many of them. But who shall give notices of those nations then inaccessible [to Megiser]? Therefore this glory is reserved for you. Through interpreters you will easily obtain versions of the Lord's Prayer in languages not only of those nations where you will be, but also of those that come to the markets, capital cities, or courts where you may pass or remain. I ask, as you obtain these and other first-fruits along the way, that you send them first to Europe, nourishing our hope and rising to great things.[94]

In contrast to Leibniz's letter to Grimaldi of May/June 1691, which noted the utility of the Lord's Prayer as one among several possible means of comparing languages, including unspecified vocabulary lists, in this letter written ten months later Leibniz pronounced the comparing of Lord's Prayers to be his central method of linguistic analysis, having discovered Megiser's collection in the meantime.[95] There is no evidence that the first letter, of May/June 1691, which Leibniz submitted to the Jesuit network via Papebroch, ever reached Grimaldi. Of the letter of March 1692, Leibniz had two copies made. One copy he sent to Kochanski for forwarding via Muscovy to Persia; the other he sent to Paul Pellison, at Paris, in hopes that the French Jesuits would be able to get it to Grimaldi. It was the Kochanski exemplar that eventually caught up to Grimaldi a year and a half later at Goa, on India's Konkan Coast.

Reading the Grimaldi Letter

Leibniz wished for the safety and success of Grimaldi's long journey back to China, and he expressed sorrow at hearing of the obstacles that hindered Grimaldi's progress. During the tumult of travel Grimaldi had likely forgotten Leibniz and the conversations at Rome that Leibniz had enjoyed so much, but Leibniz hoped that once he had recovered from motion sickness, perhaps Grimaldi would remember him. "Our utmost desire is this," wrote Leibniz, "that you might direct your wisdom, entrusted to you by Providence for the great benefit of the human race, toward a commerce or an introduction of

new light between vastly distant nations."[96] As in his first letter to Grimaldi, in May/June 1691, here too Leibniz's chief concern was to balance the exchange of knowledge for the betterment of humankind.

Specifically, Leibniz requested knowledge about Chinese mining, metals, and chemistry; the agricultural arts, including horticulture, herding, and hunting; *naturalia*, such as Chinese plants and animals; and the domestic arts useful to daily life, including medicine and even astrology. He asked Grimaldi to arrange the sending of books, plants and seeds, and diagrams of machines and tools, just as Simon de La Loubère had brought an astronomical instrument back from Siam. Even some Chinese persons themselves might travel to Europe, where they could translate their wisdom and teach Europeans their customs. This was indeed a tall order, but Leibniz was composing a wish list of the entire Chinese *historia literaria*. As in his letter of May/June 1691, here in March 1692 Leibniz suggested that such knowledge would help to solve two problems of contemporary significance in modern Europe: the age of the earth and the origins of the nations.

Despite the tremendously erudite and creative work of the early-seventeenth-century chronologers, who had puzzled together the interwoven histories of the ancient empires, discrepancies and inconsistencies still remained. When, exactly, had the Hebrew patriarchs lived? Why did the Septuagint suggest an earlier creation than other ancient texts did? The Chinese chronology could help adjudicate these theological and historical questions. But to accomplish this would require a history of the whole of Chinese learning—the most ancient Chinese authors and the sources from which they drew their knowledge. The minutiae of Chinese law, the duties of citizens and their magistrates—all of these could be known from books, and Leibniz proposed an annotated bibliography of Chinese law and literature.[97]

And not only books; but astronomy, Grimaldi's area of expertise, could help establish the chronology of the earth and human history. In 1623 the Jesuit Johann Schreck-Terrentius, a predecessor of Grimaldi and Ferdinand Verbiest at the Directorate of Astronomy, had sent from China to the Jesuit University of Ingolstadt a question about the Chinese calendar. A mathematician at Ingolstadt had forwarded it to the best astronomer-mathematician in northern Europe, Johann Kepler. Kepler's response did not make it back to Terrentius in China, but Kepler had published his response in 1630. While in Rome in February 1689, Leibniz had published an essay on Kepler's harmony of the spheres in *Acta Eruditorum*. When Leibniz and Grimaldi met in Rome in July of that year, they discussed Kepler and Terrentius, but lacking the text,

they could only discuss it vaguely. Leibniz now had Kepler's 1630 text before him, and he assumed the role of Kepler to Grimaldi's Terrentius, that is, asking two generations later a question that Kepler had raised about Chinese astronomy and historical chronology. He suggested some techniques for emending the Chinese calendar, but he also wondered what method the Chinese had used to intercalate days, whether tables of motion or some indigenous folk method, or perchance Turkish or Persian techniques had penetrated as far as China. Terrentius had mentioned that the Chinese calendar employed a sixty-year cycle, and Kepler found the coincidence with the Chaldean system interesting. Kepler wondered whether the Chinese emperor Yao, who had lived about four thousand years earlier, might have been the same as Javan, son of Japheth and grandson of Noah. Others had speculated that the Chinese were descended from Shem or another of Japheth's sons, perhaps Magog, Mesech, or Tubal, the supposed source of the Tartars. "But I suspect the origins of the Chinese and the Tartars to be different," Leibniz commented.[98]

These questions, from scientific exchange to chronology and *historia literaria*, from human origins to language to astronomy and back, reveal an anxiety about Europe's own identity, its place in the world, who the Europeans themselves were, and where they had come from. To answer such questions would require a truly comprehensive knowledge of Chinese laws, customs, and history. Leibniz hoped Grimaldi might assume the role of apostle of Chinese knowledge to Europe. Or if Grimaldi himself was too busy with more mundane pursuits, then perhaps the young Giovanni Laureati, to whom Leibniz had written at Rome and whom he knew to be in Grimaldi's China-bound entourage, was more lightly burdened. Leibniz asked Grimaldi to greet Laureati.[99]

No one could have known whether a long-shot letter sent through Paris and Warsaw would reach its target. Even if the letter were fortunate enough to find its way to Grimaldi, there was no guarantee that Grimaldi would answer Leibniz's request for systematic and comprehensive knowledge of China and Grand Tartary. Realistically, Leibniz apparently expected little to come of his request to Grimaldi. Whatever the chances of the success of his letter, as Leibniz expressed pessimistically to Tentzel in March, in May 1692 Kochanski congratulated Leibniz on the letter that encompassed the whole of European learning and demonstrated the genius of his mind.[100]

That same month, May 1692, with his letter precariously under way, Leibniz wrote back to Fantoni and declared his intentions.[101] Whereas in his letter to Grimaldi he had called for a systematic exchange of knowledge that encompassed the whole of the European and Chinese arts and sciences, in his

letter to Fantoni Leibniz construed his purposes more narrowly in terms of language. Scythia, it was agreed, represented the womb of nations (*Scythiam esse vaginam gentium*; the phrase was from Jordanes). From this Asiatic source had emerged in succession the Hungarian, Slavonic, and Germanic nations, and that same source now incubated the Tartaric nations as well. If Europeans were better instructed about the peoples of that region, then that knowledge could serve to illuminate the origin of nations. And here in May 1692 he repeated the formula he had employed with Kochanski and Grimaldi in March, that the Lord's Prayer in the languages of the Tartaric peoples should be easy to procure in marketplaces and capital cities where merchants and diplomats gathered. Jewish and Armenian merchants, who traveled widely through the Muscovite, Ottoman, Persian, and Uzbek Empires, would probably be the best agents for such a linguistic enterprise. Leibniz asked Fantoni to impress the importance of such knowledge on Carlo Maurizio Vota, the Jesuit theologian at the Polish court, whom Leibniz understood to be on his way back to Rome. Fantoni himself also had a role in Leibniz's growing enterprise. Surely the Congregation for the Propagation of the Faith, at the Vatican, must have a library of grammars and dictionaries for the preparation of missionaries. Fantoni must know someone with access to those. It should be an easy matter for a missionary experienced in a given world language to work up the Lord's Prayer, the most basic text of Christianity, in that language and to supply Leibniz with an interlineated translation so that he could compare it with others. This work of world missionaries would serve to increase piety as much as it would to illustrate geography.

Days later, in early June 1692, Leibniz wrote to Henri Justel, in London, boasting of his success in integrating himself into the Jesuit network: that Grimaldi, as successor to Ferdinand Verbiest as both mandarin and president of the Tribunal of Mathematics at Beijing, was leading a small army of Jesuits to the Far East by both sea and land; that he himself had spoken in depth with Grimaldi at Rome and now had sent a letter via Kochanski that was in the same mailbag as a royal letter from the king of Poland to the king of Persia. Leibniz described to Justel how he had asked Grimaldi, Kochanski, and, indirectly, the Polish king himself to establish a program of linguistic inquiry by collecting translations of the Lord's Prayer in "interior Scythia," since many of the European nations originated in the region between "the Northern Ocean," the Black Sea, and the Caspian. These translations, once collected and compared, would enable him to confirm Busbecq's report of the Black Sea Germans, Goths at the Sea of Azov, Michovius's report of a Hungarian-like

language in Juhra, beyond the Urals, and the existence of German cognates in the Persian language.[102] That is, Leibniz was on the brink of obtaining the knowledge he required to write the second preliminary dissertation to *Origines Guelficae*.

Justel threw a wet towel on Leibniz's fire:

> If the Father Grimaldi of whom you speak in your letter were sincere, it would enable us to underscore the errors in the Relations that we have with China. But it is rare to find Jesuit who loves the truth. They never do nor write anything except what is in their own interest. Father Couplet, whom I have seen here, has disabused us well of many things. It is true that the Muscovites do not want to allow anyone to pass through their territory in order to reach China. The road is not so long, as you have been able to see in Witzen's very interesting Map of Tartary [Leibniz of course still had not seen it]. I'm afraid that your desires concerning languages won't work out. It is to be feared that what You desire concerning languages is not done. Conrad Gesner has made a little treatise that You have seen. He points out many words from each.[103]

Gesner. Conrad Gesner's *Mithridates*, published in 1555, a century and a half earlier, was a collection of twenty-two Lord's Prayers. By 1600 Hieronymous Megiser had doubled that number, as Leibniz well knew, having dropped Megiser's name to Fantoni.[104] In 1680 Andreas Müller, publishing under a clearly bogus pen name, had increased the collection to nearly a hundred Lord's Prayers.[105] But most of these were in European languages, and in any event none of them came from that *vagina gentium* between the Black and Caspian Seas. Anyway, Justel was bitter at having been caught up in the mass expulsion of a quarter million Protestants from France just a few years earlier, in 1685. Leibniz knew that Jesuits played no small role in shaping French royal policy both domestic and foreign, just as they were influential at the Polish court, Charles Maurice Vota in particular. Undaunted, Leibniz continued to cultivate his correspondence with Jesuits far and near. But to other correspondents he began to express exasperation at the traveling missionaries' lack of responsiveness to his requests. In the second half of 1692 he began to turn his attention toward sources who might have a greater interest in understanding and better access to the languages of northern and central Asia.

The Jesuit Search for an Overland Route to China

(1685–1689)

Grimaldi was not the only Jesuit expelled from Muscovy in the 1680s. In 1687 and 1688 a French Jesuit named Philippe Avril had twice sought to cross Grand Tartary to China, and twice he had been rebuffed. The next year, 1689, the only two Jesuits licensed to reside in the Muscovite Empire—Avril and his companion would have been a third and a fourth—were expelled in one of the first acts of Peter the Great after he seized the throne from his half-sister and regent, the czarevna Sophia. Philippe Avril published a report of his travels in the Ottoman Empire, Armenia, and Muscovy, including his reconnaissance of the possible overland routes to China. Published in 1692, Avril's report was a principal source of Leibniz's knowledge about the peoples and geography of Lesser and Greater Tartary; it was also a source Protestant colleagues warned him not to trust.

Philippe Avril was one of seven French Jesuit mathematicians sent to the Far East and supported by royal stipends from Louis XIV in the year 1684. The other six—Jean de Fontaney (1643–1710), Guy Tachard (1651–1712), Jean-François Gerbillon (1654–1707), Louis Le Comte (1655–1728), Joachim Bouvet (1656–1730), and Claude de Visedelou (1656–1737)—traveled by sea.[1] Guy Tachard exited the group at Siam, returned to France with Ambassadors Chaumont and Choisy, and in 1687 he would escort Ambassador Simon de La Loubère to Siam again. This left five French Jesuits for China. Philippe Avril did not sail with them, despite having been recruited at the same time that Philippe Couplet visited Paris and Versailles in 1684.

Avril's mission was to reconnoiter possible overland routes through Persia and Grand Tartary and, if possible, to enter China from north of the Great Wall. This latter goal went unfulfilled, but Avril did learn enough about the caravan routes and population configurations of central Asia that in 1691 the Society of Jesus risked sending the rerouted Philippe Grimaldi, leading his party of twelve missionary-priests, across Persia to China.

In October 1684 the veteran of China, Philippe Couplet himself, accompanied young Philippe Avril (1654–1698) down the road from Paris as far as Lyon.[2] Traveling overland, Avril was actually able to leave France even before his maritime colleagues, who waited for their ship on the docks at Brest. Along the way Couplet reassured Avril that although his journey into the unknown steppes of Asia would be fraught with danger and hardship, in fact it would be safer than his colleagues' voyage. In the century between the opening of the China mission and Philippe Couplet's return to Europe (1581–1681 by Verbiest's reckoning), Ferdinand Verbiest counted 105 Jesuits who had successfully reached China.[3] Couplet estimated that another five hundred had attempted the voyage but had not made it, the vast majority perishing at sea as a result of either shipwreck or disease.[4] And sure enough, despite all the adventure and uncertainty coming his way, never would death be so near to hand as on the first leg of Avril's expedition, when his ship foundered in a storm off Cyprus in February 1685.

Overland, Avril's obstacles were no less daunting, but at least they were human obstacles, not nature itself. Instructed to meet up with a French colleague named Louis Barnabé, who was establishing a Jesuit house at Erzerum in Armenia, Avril landed at the port of Alexandretta in Ottoman Syria. From Alexandretta he joined a caravan to Aleppo, where the Jesuits had a mission. But after Aleppo he was on his own. His next destination was Betlis, in Kurdish Armenia, 240 leagues across the Syrian desert, infested with robbers, and administered by Muslims. Avril befriended an Armenian Christian who knew the route, and they joined a merchant caravan. Avril set aside his European garb and disguised himself as an Armenian. It was Lent, which the Armenians took very seriously, so Avril limited his diet to nuts, dried fruit, and coffee. A tip for those traveling in the Ottoman Empire: hire a Muslim guide, not a Christian. The Christians were already off balance, although the Armenians had the right to exist. Under pressure from Ottoman officials, Avril's Armenian "friend" outed him as a "Franke." Avril was detained, threatened, and very nearly imprisoned but got out of it by paying double the customs toll. He decided to learn the Turkish language, the better to disguise himself, and he lay low in Betlis and Armenia for a year.

How Seven Jesuit Astronomer-Mathematicians Were Sent from France to the Far East in 1685

By the late 1670s the Flemish Jesuit Ferdinand Verbiest had reached the height of his power in the Qing imperial administration and assumed both official

and de facto authority as the head of the Jesuit missionary enterprise in China. A loyal servant who had cast his lot with the rising young Kangxi emperor, then in his twenties and coming into his own, Verbiest's true calling was as a mathematician and astronomer. Imprisoned along with the rest of his colleagues while the emperor was under the guardianship of a regency until 1669, by 1678 Verbiest had been rehabilitated and presided over the Directorate of Astronomy, including a staff of Chinese astronomers, many of whom he and his colleagues had converted to Christianity.[5] In 1678, serving that year as procurator of the Jesuit vice-province of China, Verbiest wrote a number of letters to European patrons seeking financial support and additional manpower. One of these he cast as an open letter to the Society of Jesus in Europe, in which he announced that the time was favorable to send to China a reinforcement of missionaries. Translated (or rather, loosely paraphrased) from Latin into French and circulated widely in scholarly and ecclesiastical circles, Verbiest's letter catalyzed a missionary movement at the court of Louis XIV that would see a hundred missionaries sponsored and funded by the French monarchy and sent around the globe from the 1680s to 1700.[6] Much has been made of the Jesuit mission in China in the late seventeenth century, but their numbers were shockingly small: fifteen missionaries, of whom five were assigned to the imperial court at Beijing, so dependent were they on the good will of the emperor for the success of their missionary enterprise. This left only ten to serve all the rest of China. "We are fourteen or fifteen dispersed across this Kingdom," wrote Verbiest, "but this is what kind of number in an Empire so vast? It is as if one of us were at Rome, another at Turin, another at Madrid, another at Lisbon, another at Paris, another at Bordeaux, another at Vienna, another at Mainz, another at Anvers. How many provinces of China have never seen a European?"[7]

Already in the second decade of the seventeenth century the Jesuit missionary Nicolas Trigault had returned to Europe to recruit reinforcements in astronomy, mathematics, and other European sciences. During the 1620s and 1630s, Johannes Schreck Terrentius, Giacomo Rho, and Adam Schall von Bell had collaborated closely with the Chinese Christian Hsü Kuang Ch'i, who led a reform movement for greater precision and accuracy in astronomical observation. At a couple of crucial moments Hsü's team had surpassed their rivals, who used traditional Chinese and Islamic methods. The accuracy of their predictions had benefited the cause of the Jesuit mission considerably. But here was the main point, said Verbiest in 1678: all the neighboring nations looked to the Chinese as the wisest of men. "In effect, all nations are

barbarians compared with them, except perhaps some from our Europe, and maybe even, if I may be permitted to say so, [the Chinese] surpass the most polite of Europe in many things."[8] If missionaries were to introduce Christianity broadly in China, surely the lands neighboring China would come along as well.

The Chinese followed a lunar calendar. Every year they printed an almanac, similar to the almanacs printed in Europe "but much more precise." It was always confirmed by an imperial edict forbidding, on pain of death, that a single word be changed. This calendar governed all contracts and all public acts within the Chinese empire, and China's neighbors followed it too. Schreck Terrentius, Rho, and Hsü had all died in the 1630s, but when the Qing captured the capital of Beijing in 1644, the German Jesuit Adam Schall von Bell had been named acting director of the Bureau of Astronomy. When the Shunzhi emperor, the first of the Qing dynasty, died, one court faction blamed Schall and his staff, saying that the emperor's death had been caused by an inauspicious calculation. The Jesuits were placed under house arrest and replaced by astronomers who employed traditional Chinese and Islamic methods. In 1668, while still under arrest, Verbiest discovered several errors in the next calendar, the most egregious being a leap month that belonged not to that year but to the next one. Verbiest petitioned the emperor, asking that the leap-month be stricken. "There was a great uproar in all of China," he wrote. The mandarins assembled. Many petitions were submitted in opposition to Verbiest's, but everyone agreed that a flaw in the calendar would be disastrous to China's regional prestige. Verbiest proved his case mathematically, and the emperor ordered the leap-month stricken. This correction brought much credibility to the Jesuit mathematicians, "and presently it is I who compose the calendar, and it is produced under my name throughout this vast kingdom."[9]

Because of the need for more manpower and the ongoing opposition in Rome to the Jesuits' method of converting the Chinese to Christianity, in 1681 Verbiest decided that a personal representative of the mission needed to return to Europe. Philippe Couplet, who was serving as procurator of the Jesuit vice-province of China, a rotating position whose duties included serving as liaison between the China Mission and its overseers in Europe, was tapped for the job. Couplet sailed for Europe both to recruit more missionaries and to shore up Catholic support for the China Mission.[10]

In 1682 and 1683 Verbiest sent to Europe reports of two voyages he had made in the company of the emperor himself to Oriental and Occidental

Tartary north of the Great Wall. The emperor had brought along his chief astronomer for the purpose of mapping Manchuria and Inner Mongolia. Verbiest knew how to use his astronomical instruments not only to calculate the Chinese lunar calendar as at Beijing but also to chart with precision the global positioning coordinates of specific locations in the Qing homeland. But Verbiest was serving more than just the emperor. Immediately upon returning from the expeditions at the end of the summers of 1682 and 1683, he drew up a detailed itinerary of the emperor's travels, including the latitude and longitude coordinates (calculated from the meridian of Beijing). These points he intended as augmentation for European atlas makers. He also knew that those points could be used by missionaries who might approach China by land from central Asia instead of taking the normal route by sea.[11]

Already in his 1678 letter, Verbiest had announced that China, formerly closed, had in the past generation been forcibly penetrated on many sides, not only by the Manchus from the north. Earlier in the seventeenth century Catholic missionaries had attempted to hike from India over the Himalayas to Tibet or through Kashmir to Kokonor (Qinghai) in order to reach China, and although a few had succeeded, the route was so arduous as not to be practicable.[12] There was a well-blazed route from the eastern Mediterranean through the Ottoman Empire to Armenia, then through the Persian Empire to its capital at Isfahan, where European states kept embassies. From Isfahan one could travel to Suerat, on the Persian Gulf, and take a ship to Goa, then a Portuguese merchant ship around India and Cochinchina to the Portuguese merchant colony at Macao and thence into China. But the link that connected Armenia or Isfahan to China by way of Grand Tartary, if such a link existed, was unknown. Verbiest held out the possibility that such a link must exist. The medieval Silk Road had broken up centuries earlier, but merchant caravans still crossed the steppe and high desert between the Caspian Sea and China. If a missionary were to embed himself with such a caravan, he might find a route to China more serviceable than traveling by Portuguese merchant ship. To find this overland caravan route was the mission of Philippe Avril.

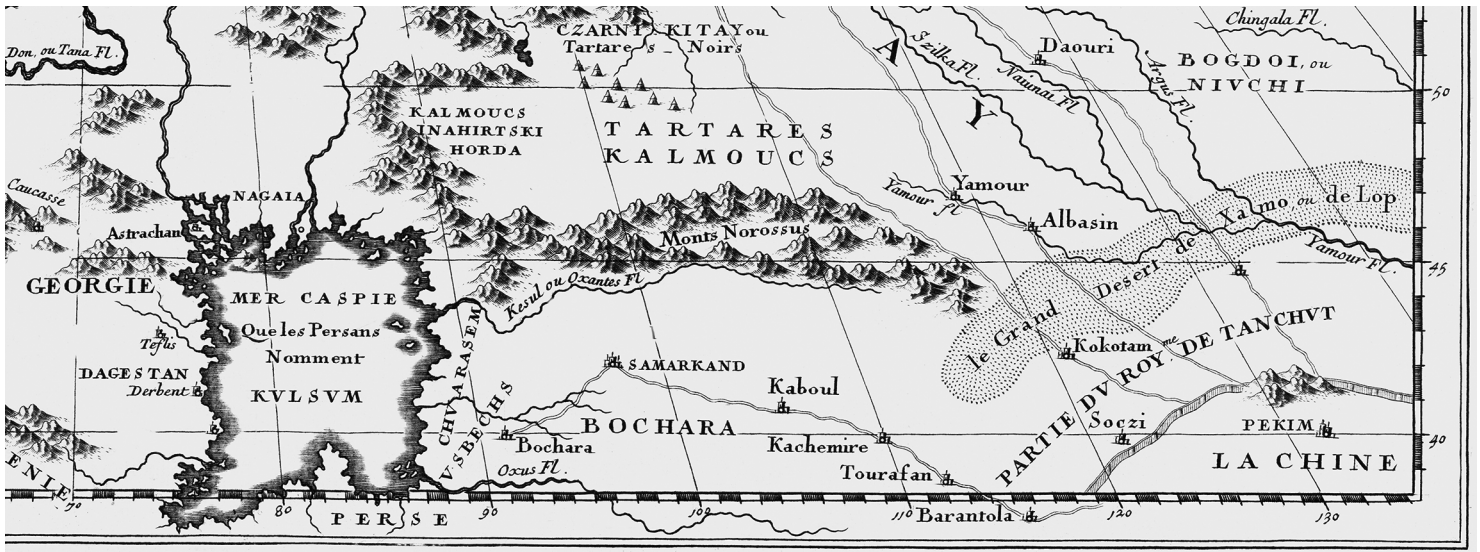
François d'Aix de La Chaise credited Verbiest with catalyzing the French Jesuit missionary enterprise in the Far East. It was Verbiest who had sent Philippe Couplet back to Europe, putting him in a position to obtain an audience before King Louis XIV of France at the crucial moment when Louis was driving the final Protestant Huguenots out of France and was particularly open to the idea of winning glory by advancing the Catholic faith abroad as well as at home.[13] Couplet's description of mathematics and astronomy in

China, together with La Chaise's persistence as Louis's confessor, had persuaded the king to commit the resources to support in the Far East six highly educated Jesuit mathematicians—their expensive optical and scientific instruments, their passage by sea, and their maintenance on royal stipends. La Chaise cited Verbiest's 1678 letter specifically as stimulating enthusiasm for the mission in China.

In April 1686 Philippe Avril was back on the road, joined by his Jesuit colleague Louis Barnabé. They hid their true identities behind Georgian costumes and crossed the Caspian Sea to Astrakhan, where Avril had learned that Uzbek caravans departed for Bukhara and Samarkand three or four times a year. Astrakhan in the seventeenth century was a major multicultural center, hosting Georgian, Armenian, Muscovite, Hindu "Banian,"[14] and Uzbek populations, as well as several varieties of Tartars. Sedentary Nogay Tartars possessed an entire suburb of the city. Nomadic Kalmyk Tartars, numbering more than one hundred thousand, appeared at the city gates every year. Muscovite administrators were permitted to control the city at the price of an enormous tribute paid to the nomadic Kalmyks.[15]

Among these widely traveling merchant populations at Astrakhan were many veterans of the journey to China. Avril befriended one Uzbek from Bukhara who had crossed to Beijing four times. This informant described the routes from Bukhara to China, and Avril and Barnabé subsequently corroborated his report with other merchants with whom they conversed at Astrakhan and later at Moscow. From Bukhara there were two main caravan roads. A southeasterly route led from Samarkand to Kabul, then climbed through Kashmir to Barantola (Tibet). From the border of China it was a one-month journey to Beijing.[16] A more direct, easterly route passed from Bukhara through the Mongol steppes to Kokonor, just outside the western frontier of the Great Wall. Once inside the Great Wall, one could reach Beijing in just fifteen days. By either route, said Avril's Uzbek informant, a pass was required from a Chinese governor. The better option was to apply through a Tartar prince (a *taiso*), who for a fee would send an ambassador to Beijing, under whose diplomatic protection one could enter China. This was the custom of the Uzbek merchant trains.[17]

These sounded like plausible roads to China. As word spread of the two Jesuits' attempt to reach China, another informant showed them the journal of three merchants who had traveled from Astrakhan to China, following the road from Bukhara to Samarkand, in 111 days. Avril and Barnabé



Nouvelle Carte de la Siberie et du Kitay, in Avril, *Voyage* (1692), detail depicting Grand Tartary from the Caucasus and the Caspian Sea in the west to the Great Wall and "Pekim" (Beijing) in the east. Astrakhan is in the Volga River delta at the northwest corner of the Caspian Sea. Nogay and Kalmyk Tartars are both indicated, as are Uzbeks and the regions of Bukhara, Tangut, and China. Some labels have been removed from the original for legibility in reproduction.

were prepared to join the next caravan, but there was one problem. In the summer of 1686 nobody was getting across the central Asian steppes, not even Uzbek merchants. A war engulfed both the Kalmyks and the Uzbeks.[18]

What Europeans Knew about the Peoples of Grand Tartary in the Late Seventeenth Century

Philippe Avril had a Jesuit colleague at the other end of Grand Tartary who also had knowledge of the Mongol nation. Like Avril, Jean-François Gerbillon, one of the five astronomer-mathematicians sponsored by Louis XIV of France, had his itinerary blocked by the same Mongol wars. Gerbillon's story—with which Leibniz would become acquainted in 1695—is told in chapter 9. But in the interest of keeping like material together, let me compare Gerbillon's understanding of the peoples of Grand Tartary with Philippe Avril's here.

In the summer of 1688, two years after Avril was at Astrakhan and one year before Grimaldi attempted to cross Siberia to China, Gerbillon was attached to an embassy of the Qing Chinese emperor as an interpreter for border negotiations with the Muscovite Empire. The embassy's destination was Selenginsk, southeast of Lake Baikal, but they would not make it. The Qing Chinese emperor's embassy would be blocked by an extension of the same Mongol wars that prevented Avril from reaching Bukhara.

Looking from the far eastern end of Grand Tartary, the opposite point of view from Philippe Avril's at Astrakhan, Gerbillon understood three sets of what we would now call Mongolic speakers. In the seventeenth century, before Europeans distinguished clearly between the Turkic and Mongolic language families, they grouped together all the nomadic peoples of central Asia under the single heading "Tartars." Lesser (sometimes "European") Tartary included the southern region of the Muscovite Empire, around the Black Sea or generally west of the Volga River and the Caspian Sea. This was where Leibniz imagined that the remnant of the Goths must be, if it still existed, and most of his linguistic efforts were focused on the languages of this region. Grand Tartary was the region beyond the Caspian Sea. It included the grasslands of modern Kazakhstan, the central Asian states of the former Soviet Union, as well as Mongolia and Manchuria—the whole region north of the Great Wall, south of the Siberian taiga, and extending all the way to the Pacific Ocean. The easternmost of these Tartaric peoples, the Manchus, had unified in the early seventeenth century and conquered the Chinese Empire south of the Great Wall. Europeans typically called these Manchus "Oriental Tartars." Gerbillon—and all Europeans—perceived a sharp distinction

between the Tungusic/Jurchen-speaking Manchu Oriental Tartars and the Mongolic-speaking Occidental Tartars. But he did not describe that distinction in terms of language. Indeed, the Manchu princes with whom Gerbillon traveled all understood the Mongol language, and they could speak it pretty well; and the Manchu script was derived from the Mongol alphabet, a fact that Grimaldi explained to Leibniz at Rome in 1689. Nevertheless, the Occidental Tartars were plainly of a different set. From the perspective of Gerbillon, embedded in an entourage of Manchu/Oriental Tartars, the central Asian Occidental Tartars comprised three principal groups: Mongols, Khalkhas, and Eluth/Kalmyks.

MONGOLS

The closest of these Gerbillon called simply *Mongous* (henceforth in this narrative, Mongols). These lived in the region now called Inner Mongolia, outside the Great Wall and extending nearly the Wall's entire length, from the province of Leao Tong (Liaoning) in the east to Chen si Province (Shaan Xi, which on Jean-Baptiste Bourguignon d'Anville's 1732 map included also Gansu Province) in the west. These Mongols had long been subject to the Manchus, since even before the Manchus overthrew the Ming dynasty in 1644. The Manchus had dissolved the Mongols' traditional clan structure by reorganizing them under the regimental banner system, under which the Manchus also organized themselves. But the Mongols retained their nomadic mode of life. They cultivated no grain and therefore ate neither bread nor rice. Some small communities of Chinese had been established (forcibly) by the Manchus in the grasslands outside the Great Wall, and these planted farms in the soil, which to Gerbillon seemed very fertile. But the Mongols lived in tents, not houses. Gerbillon peeked inside one tent to see how it was constructed. A series of poles formed a sort of cage about four meters in diameter—some a bit larger, others a bit smaller—and not quite three meters tall. Bats of wool—felted, not fabric—covered the frame. A fire was burning inside the tent Gerbillon inspected, and he noticed that the smoke was vented by removing the bat of wool above the fire. "I saw on this fire three or four pieces of I don't know what kind of meat, which looked horrible."[19]

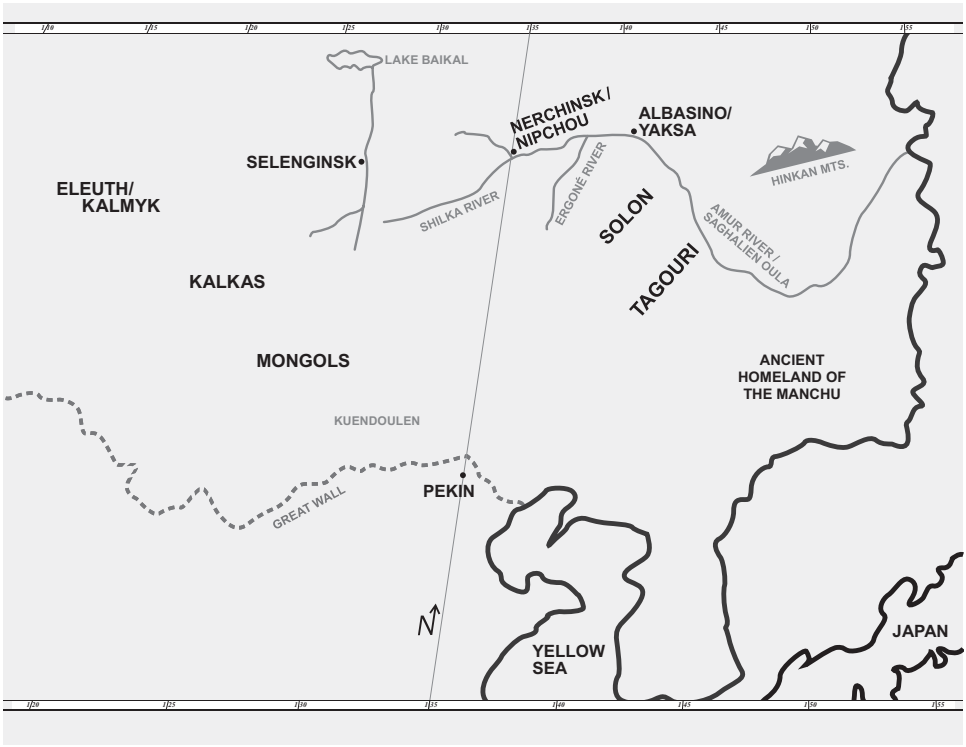
Their diet consisted of just meat and dairy products. The meat, being steak tartare, was practically uncooked. Gerbillon found it revolting. "There is nothing more disgusting than this meat that makes the heart leap and that is capable of banishing the appetite of the most famished of persons." Once when a tributary prince brought a gift of finest meats to the Qing ambassa-

dor, Gerbillon noted that the ambassador himself avoided it; his men, however, enjoyed it "very gaily," despite its being accompanied by neither bread nor rice nor salt. "Maybe it was salted," he admitted.[20] The tributary prince who paid his respects with this gift commanded two or three thousand subjects who were scattered across the steppe in small communities, "four or five families in one place, seven or eight in another, etc."[21] They were exceedingly poor by the standards of any sedentary people; but being nomadic, they seemed not to suffer for it. A prince's wealth consisted of maybe three hundred horses, with cattle and sheep in lesser proportion. But what made the prince a prince was the annual payment of tribute to the emperor of China.

Tributary status was not a humiliation. It was true that an annual caravan carried symbolic gifts to the imperial court at Beijing and that the envoy touched his head to the ground in acknowledgment of the emperor. But in return the embassy was lavished with gifts of tea, silk, and silver, saleable items that were a substantial source of income. This Mongol prince took home five thousand taels of silver each year. In addition, the embassy train was a merchant caravan that did brisk business in the capital as a sideshow to the display of deference. Finally, in accepting tributary gifts, the emperor explicitly recognized the authority of the tributary prince in his autonomous domain. The emperor bestowed a title (*régulo*, in Gerbillon's French) and authenticated the title with a seal borne by the prince. Tributary to China was thus a coveted status with tangible political and material benefits.[22] At Astrakhan, Avril and Barnabé saw for themselves how Uzbek merchants entered China. They paid a fee to the *taiso* Ajonka, the khan of the Tartar tribe near Kokotan, who then guaranteed their safe passage to China. (Avril volunteered that these Tartars had no fixed abode, but lived after the manner of the ancient Scythians.)[23]

KHALKHAS

Beyond the Mongols of the Inner Mongolian steppe were the Khalkhas of the desert. The Khalkhas occupied a territory into which the Manchu Qing could project power only with considerable difficulty. At the Kouendoulen Plain, still well within Inner Mongolia, the Qing embassy train bound for Selenginsk divided into three columns in order to put less pressure on forage and water supplies. As the embassy marched north, the grasslands gave way to desert scrub, but the streams still created oases with fresh water and forage that harbored wild geese. Desert shrubs sheltered jackrabbits and partridges, scared up by the embassy as the columns advanced. Within a few days' march,



Composite map of Oriental Tartary redrawn from several plates in Jean-Baptiste Bourguignon d'Anville's atlas (1732), which was based on astronomical observations taken by Jean-François Gerbillon. Leibniz, who died in 1716, never saw the atlas, nor did he have Gerbillon's tabular observations, which were published in 1736. (Redrawn by Matt Thyssen.)

the waters stopped flowing. They dug wells to water the animals. The stagnant streams provided no forage, so the animals were reduced to eating the shrubs. Human population disappeared altogether. And this was still Qing Inner Mongolia. When the Qing crossed the boundary into Khalkha territory—an empire in its own right, as according to Gerbillon—the rocky-sandy hard-pack became the shifting sand of the Gobi Desert, making it very difficult to travel, particularly for the wagon porters. The Manchus hunted what they could, but the ambassador's Afghan hounds were too slow to catch the rabbits. They did kill some partridges with shotguns, but when the soldiers gave chase to a herd of deer, their horses were too fatigued from lack of forage and water to carry them close enough for a kill.

Nevertheless, people lived in this inhospitable terrain. Like the traveling Manchus, the Khalkhas dug wells to water their animals. Gerbillon could not comprehend how they could nourish the number of camels, horses, cattle, and sheep they had in a region where there seemed to be no forage. Nor could he understand how they could reside "in the middle of these burning sands on which their children and some of the women walked in bare feet." The children's skin looked "half-cooked from the sun. Nevertheless the people seemed vigorous and fresh." Gerbillon had a chance to observe them up close when a large number of women came to the Manchu camp to trade their animals—which were surviving better than the Manchus' own—for Chinese products: cloth, salt, tea, and tobacco. Other than these staples, the Khalkhas were entirely self-sufficient, accepting nothing else in trade, not even silver. Priestly vocation notwithstanding, Gerbillon engaged in the venerable European tradition of characterizing a nation by the appearance of its women. From a distance the women appeared to be "modestly clothed" in robes that covered them from shoulder to foot. But up close, one could see that a lifetime in the desert sun had weathered their skin badly. "When one sees their hideous faces and the locks of hair that they let tumble around their ears, one takes them for real shrews." Fresh and vigorous though they might have been, theirs was not an easy life. Even the Mongols of the steppe near the Great Wall, who lived in relative comfort in comparison with their kinsmen in the desert, did not survive long. Gerbillon was told that few elderly people were to be seen among the Mongols. How much more difficult it must have been for the Khalkhas. "Except for the Kafirs at the Cape of Good Hope, I have never seen a nation filthier than these Tartars," wrote Gerbillon.[24]

A Khalkha in the ambassador's entourage told Gerbillon that during the summer his nation subsisted on the milk from their flocks and on Chinese tea. They used all kinds of milk, from horses, camels, cows, and sheep. During the winter, when the animals weren't lactating, they ate meat cooked rare over a dung fire. When it became extremely cold in the continental winter, they built a big fire in the center of their tents and remained inside. They let the animals graze as much as they wanted, going out only to milk them or to cull one for meat when needed. "These Tartars are apparently not very courageous," Gerbillon commented. "For caravans of Muslims, passing through their lands on their way to China, pillage and kidnap them with impunity in order to sell them at Beijing, where they traffic in these kinds of merchandise. This same Khalkha with whom I spoke had been kidnapped by Muslims and sold at Beijing."[25]

ELUTH/KALMYKS

Gerbillon knew the western branch of the Occidental Tartars as the Eluth. Their region began at about the Altai Mountains of modern western Mongolia and Kirgizstan and extended westward to the steppe of Kazakhstan. Exactly where their territory ended was a matter of perpetual dispute, and Gerbillon, at least in his early years in China, knew little about them. He did know that *Eluth* was the Manchu name for them and that the Muscovite term was *Kalmyk*.

Where the Manchus stalled after a week in the desert, the Eluth had mastered the art of moving quickly through the desolate terrain from one steppe region to another. All of a sudden they would appear on the doorstep of the tributary Mongols; just as suddenly they would be gone, only to reappear again. It will be noted, however, that the Gobi Desert and the mountains north of it belonged to the eastern wing of the Occidental Tartars, the Khalkhas. What were the western wing, the Eluth, doing up against the border of Inner Mongolia? In the summer of 1688, the Chinese embassy to Selenginsk walked into the middle of a war.

It was in the middle of the Khalkha desert in July 1688 that Gerbillon first encountered the Eluth. That summer, that is, a year before the negotiations at Nerchinsk, the Muscovite and Qing ambassadors tried to meet at Selenginsk. The Qing intended to cross the desert to the mountains of northern Mongolia, then to follow the mountain streams west to the Selenga River, and travel downstream (north) to the Siberian town named after the river. But as their progress stalled on the shifting sands, they encountered waves of Khalkha refugees fleeing from an invasion of Eluth. Tens of thousands of Khalkhas poured out of the northern mountains and ran for the Qing border; tens of thousands more fled down the Selenga River into the Siberian forest.

Mongolian State Building?

Minor dustup or event of major regional significance? Strategic military maneuver or random act of destruction? It is worth inquiring what the Eluth were up to, because the Eluth wars of the 1680s thwarted the itineraries of all three of the world-traveling Jesuits in this book: Philippe Avril hoped to join an Uzbek caravan from Astrakhan to China, but no merchant trains could get through on account of the war; Grimaldi was instructed to follow the route identified by Avril but was forced to divert to Goa; and Gerbillon, embedded in the Qing embassy, could not safely cross the desert. The Muscovite ambassador

Theodore Alexeyevich Golovin too walked into a war zone when he arrived in 1688, and immediately he found himself besieged by Khalkha refugees who surrounded the town of Selenginsk. Golovin himself abandoned Selenginsk and took refuge a week's march further east at Udinsk (Ulan Ude).

In the eighteenth century, gentleman antiquarians liked to imagine that nomadic peoples had no history. In their view these peoples—illiterate, their collective memory passed down in song and verse, and caught in a world of unchanging structures—lived and loved and died, but nothing really happened. In the 1750s Robert Wood learned a lot about the Homeric epics by hiring a caravan to take him to Palmyra, in the Syrian desert. In the evening the Bedouins sat around campfires telling stories of love and woe, and Wood could imagine that Homer's songs of the Trojan War must have originated like that.[26] But it was patently false that the Mongols of the steppe, the mountains, and the deserts, although nomadic, had no history. Peter Perdue has strongly advanced an argument that in the 1680s the Eluth were not just marauders but self-conscious state-builders.[27]

Territorial rivalry and the position of the Zunghars as the brokers of trade between Moscow and Beijing meant that both empires knew quite a bit about the nomads of the steppe. On the other hand, that both the Qing and the Muscovite embassies were taken by surprise when they found themselves inundated by Khalkha refugees tells us that their knowledge of the Zunghars and their mechanisms of intelligence and communication should not be overstated.

In the journal of his first voyage to Grand Tartary, the aborted voyage into the Gobi Desert in 1688, Gerbillon seems unaware of the precise causes of the Eluth attack against the Khalkhas. He mentions the Khalkha khan as the target of the attack, and he knew the khan's brother was the leading Buddhist cleric. But he seems not to have known that among the Khalkhas there were actually four khans, each descended directly from Genghis Khan, the prerequisite for holding the title of khan.

The next year, during the negotiations inside the Nerchinsk fortress, Gerbillon learned more about the Eluth, caught as they were between the expanding Muscovite and Qing Empires even as the Zunghar khan Galdan worked to build an independent empire of his own. The "kalmetskogo Bushuktu-khan" was a subject of conversation on 24 August / 3 September 1689, while the Jesuits and the Qing border commissioner (the dzarguchei Rashi) hashed out with Golovin the precise boundaries between their empires, including the extent to which each might encroach into Eluth and Khalkha territory, which neither could control.[28]

Jean-François Gerbillon died at Beijing in 1707. His travel journals of the expeditions beyond the Great Wall and into Grand Tartary were published posthumously in the series Lettres édifiantes et curieuses around 1730. Eighteenth-century readers who read them closely could learn a great deal about the peoples of Grand Tartary, particularly if they read Gerbillon's observations against the reports of others who had traveled there in the meantime. Leibniz, who died in 1716, would never see them.

Fur Fight at Moscow

Avril and Barnabé had journeyed to Astrakhan for the purpose of joining a large caravan of Muscovites bound for Samarkand. But the unpredictability of war—in 1686 still on the steppe and not yet in the Khalkha desert—forced the cancellation of the entire expedition. Their hopes of reaching China dashed, the pair were on the verge of despair when friends they had made in the caravanserai informed them of a caravan of Chinese merchants that had recently arrived at Moscow. Perhaps the Jesuits could join that company on its return journey to China. With Armenian acquaintances interceding on their behalf, Avril and Barnabé applied to the voivode of Astrakhan for a passport to Moscow.[29] After much ado, passports were issued in October 1686, adventures ensued, and it was the dead of winter in early 1687 before the two Jesuits finally reached Moscow. They covered the final leg of the journey by ice sleigh.

Imagine their arrival in Moscow, a city whose expansive skyline made a deep impression on the travelers when they saw it in the distance. Ragged from months on the road, the two itinerants, bearing a passport from the governor of Astrakhan and claiming that they had come to join a merchant caravan bound for China, announced themselves at the Jesuit house in Moscow as Jesuit priests from France. The status of the Jesuit house in Moscow was precarious. Just two years earlier the Holy Roman emperor Leopold's ambassador, Johann Christoph Zierowski, had persuaded the regent Sophia and her prime minister, Galitzin, to permit Catholic priests to reside in the capital in order to minister to Roman Catholic military officers who served in the Muscovite army. The Orthodox patriarch of Moscow, Joachim, was adamantly opposed to the proposal, and he rallied to his cause a large faction of boyar families who already opposed the regent and the prime minister. Ultimately Sophia and Galitzin permitted two (and only two) priests to be maintained at Moscow.[30] So when two vagabond Frenchmen turned up on their doorstep in the dark speaking Latin, the two Jesuits of the Moscow house sent them

directly to the prime minister. Better to establish the newcomers' legitimacy than to open themselves to a charge of harboring fugitives.

Avril and Barnabé wanted at least to clean up and change out of their foreign clothes, but the two Jesuits of the Moscow house, George David and Tobias Tichanowski, insisted that they register their presence and present their Astrakhan passport straightaway. For four hours Avril and Barnabé tried to explain to three Muscovite notaries who they were, where they had come from, how they had arrived, and where they were intending to go. The interrogation, as they applied for another passport to travel across Siberia to China, ran past 11:00 p.m., when everyone was exhausted.

But the enterprising Philippe Avril would not just sit around waiting for a new passport. The next morning he set out to investigate routes across the Asiatic North to China. The first order of business was to find that Chinese merchant caravan, a more difficult task than it seemed given the size of the city of Moscow. When he did finally locate the caravan, the merchants turned out not to be Chinese at all but Tartars from Kitay.[31]

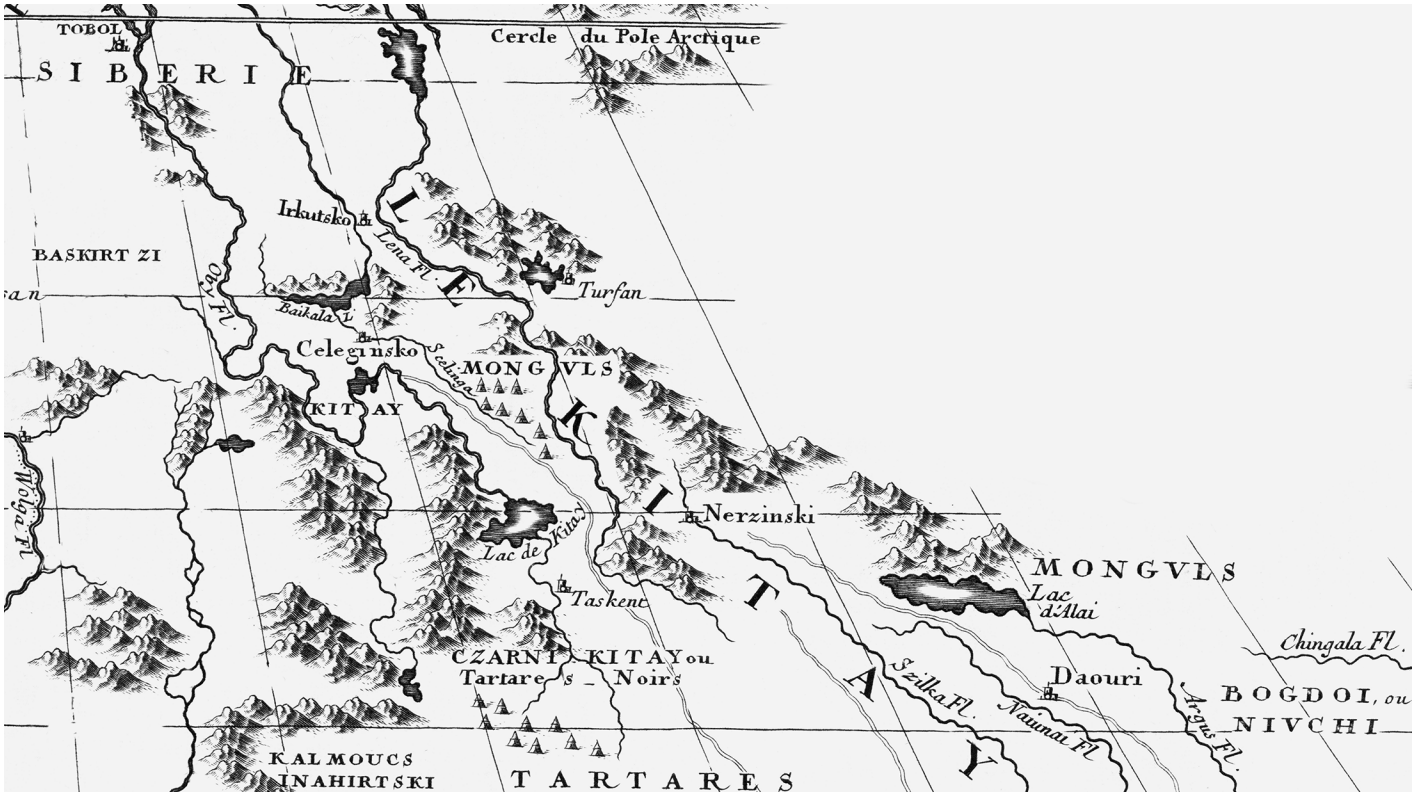
Kitay was a region no less vaguely defined than Grand Tartary. In part the two overlapped, and to some extent the terminology probably said more about the speaker than about the region itself. Avril understood Kitay to refer to everything beyond the River Ob and northwest of China. Avril did not name name the people group to which the Kitayan Tartars belonged, and it is not clear in what language they communicated, whether Slavonic (which Avril knew by then) or Turkish (which he had learned in Armenia) or "Tartaric" (which Avril later would pride himself on having mastered sufficiently to persuade a European Tartar in Poland of the truth of the Gospel; he baptized the Tartar at Pentecost in 1687).[32] But the Kitayan merchants were veterans of caravan routes leading in both directions from the steppes, having traded at both Beijing and Moscow.[33]

Through interviews with these Kitayan Tartars, as well as Zaporozhian Cossacks and western European army officers in Muscovite employ, plus documents spirited out of the Moscow chancellery archives by sympathetic informants, Avril pieced together several possible overland routes to China. One route departed not from Moscow but from India, north through the Mughal Empire to the steppe and then to the Great Wall at Suzhou, the route of Bento de Goës in 1603–7. Another led from Bukhara to Samarkand, Kabul, Kashmir, and Tibet; this was the Uzbek southern route Avril had learned of at Astrakhan. He also learned of three northern routes, each departing from Tobolsk, in western Siberia. One of these went south via the salt lakes and steppes of

Zungharia to Kokonor, a route followed by Uzbeks, Kalmyks, and Muscovites alike. A river route ran from Tobolsk up the Ob and other rivers to Lake Baikal, across to the Selenga River, and then by land through Mongolia. Finally, a third route—the one taken by Ambassador Spathari in the 1670s—also ran from Tobolsk to Selenginsk, but instead of turning south to cross the Mongolian desert, Spathari had continued east to Nerchinsk and then turned south to cross agricultural western Manchuria and into China. No matter which route one took, it was a crucial matter to join a large caravan capable of defending itself against bandits. And every such caravan was dependent on the good will of Tartaric authorities both for safe passage through Mongol territory and for procuring a pass to enter China once the border was reached.[34] As Philippe Avril learned, between the empires of Muscovy and China, the Tartars of central Asia stood as gatekeepers.

At Moscow Avril and Barnabé also learned why the czars of Moscow were so adamant in their refusal to allow western Europeans to pass through their vast domains. The two French Jesuits interviewed Zaporozhian Cossacks, who described to them how their confederation had been conquered in battle by Moscow in the sixteenth century but not defeated in spirit. The Cossacks had not retreated but had advanced on Muscovy—to the Volga, up to Kazan, then eastward, beyond the Urals to the Irtich River, where they had built Tobolsk, then to the River Ob and all the way to the Pacific, conquering Siberia in alliance with, but in many ways independently of, the czars. It was the Cossacks who discovered Siberian fur. They shot them with crossbows instead of muskets to avoid damaging the fur. Yakuts did most of the trapping; Cossacks served as middlemen, contracting with both the Yakuts and the Muscovites. A single sable pelt sold for ten times what a peasant family could earn in a year. A black fox sold for up to ten times that much. The first Cossack expedition in Siberia, in the sixteenth century, brought back twenty-four hundred sable pelts, eight hundred black fox pelts, and two thousand beaver pelts, and this was only the beginning of what would become an increasingly large and profitable state enterprise through the seventeenth and eighteenth centuries and well into the nineteenth.[35]

It was pursuit of the zibellines (sable martens) that led the Cossacks to southern Siberia, where they built a fort on the Amur River called Albazin. The fortifying of Albazin and subsequent trapping expeditions launched from there into Oriental Tartary "have given occasion to the war that they have presently with the Chinese," Avril explained.[36] Trappers fanned out through the forests of Transbaikal Siberia, each team blazing its own trails until some



Nouvelle Carte de la Siberie et du Kitay, in Avril, *Voyage* (1692), detail depicting locations along the northern route from Moscow to Beijing. Several labels have been removed for legibility in reproduction. The city of Tobol is in the upper left. Beijing is off the map. Note the regions of Siberia and "Le Kitay." Note the people groups: "Bogdoi, ou Niuchi" (the Russian name for the Manchus), Mongols, and Kalmyks. Note the cities of Irkutsk, Selenginsk (here spelled with a "C," while the river is spelled with an "Sc"), and Nerchinsk (spelled Nerzinski). Note also the (lack of) prominence of Lake Baikal.

of them stumbled unwittingly into Manchuria. It was knowledge of these new routes that the czars wanted to keep secret. And knowledge of those routes was precisely what Avril was looking for. Avril did not care about fur. Where a governor saw reason of state, a priest saw only avarice. But Cossacks and western European officers who commanded the trapping teams were willing to talk to a Frenchman, and Avril learned from them how a missionary might embed himself in a convoy in order to reach China safely and quickly.[37]

Was it because Muscovites themselves did not control the roads to China and were incapable of guaranteeing the safety of foreign travelers? So it would seem in hindsight. Or was it because the Muscovites did not want anyone nosing around in the happy hunting grounds of Siberia, where the furs of small animals were a capital source of income for the state? This latter was Avril's explanation. In the name of the czars, Prime Minister Galitzin rejected Avril and Barnabé's application for a passport to cross Siberia. Because they had entered Muscovy from Persia and lacked passports and letters of recommendation, Muscovite officials could ascertain neither their identities nor their intentions. The Jesuits must return to their king in France and obtain passports and recommendations from him. Only then would their application be reconsidered.

In Avril's view, it was not coincidental that the court of Moscow was preparing at that moment an embassy to Paris in hopes of procuring military aid against the Ottoman Empire. Already the Holy Roman emperor and the king of Poland had signed alliances with Muscovy. Under cover of night in the sparkling Moscow winter, Ambassador Bechtěev summoned Avril and Barnabé by sled to advise him how best to present his case to the court of the Sun King. Avril perceived from the start that the ambassador's cause was lost. The Jesuits briefed him for three hours, the entire time watching as wagons were loaded with furs to be sold under the ambassador's diplomatic immunity and thus free of customs duties. This was the same method by which Avril and Barnabé hoped to reach Beijing, under the diplomatic immunity of a tributary prince. But what might work in eastern Asia had no hope of success in western Europe. The ambassador invited the Jesuits to accompany him to France, where they might suggest that military aid be traded for passage across Siberia. The Jesuits wanted nothing to do with such a plan; they disassociated themselves from the embassy and departed for Poland.[38] And sure enough, in June 1687 the Bechtěev embassy was expelled from France for abusing its diplomatic privileges.[39] Meanwhile, Avril waited in Poland while Barnabé

returned to France to obtain royal passports and recommendations. "At least [I have given] some idea of Grand Tartary, which is so little known at this hour and of which one does not even dare to inform himself in Muscovy for fear of giving offense to this Nation, which is more distrustful and suspicious than probably any in the world."[40] Avril knew perfectly well why he was denied passage. Not only had he interviewed Cossacks, Tartars, and German officers but he had infiltrated Moscow so thoroughly that within the month one informant had brought him travelers' reports housed at the chancellery. Another person brought him ethnographic descriptions of the Tartaric and Siberian peoples, housed at the same office. Even in Poland he continued investigating, and at the royal court there he was presented with a secret report of Nikifor Venyoukov's itinerary to China, as well as a map based on that report.

Meanwhile, through the republic of letters Leibniz had already heard of the Venyoukov map a good year before Avril published. Avril himself published a map of Kitay and Grand Tartary that depicted the intelligence he had gathered at Astrakhan, Moscow, and Warsaw, and Leibniz studied it intensively. Avril's map and routes to China did not yield any knowledge of the languages, but at least Leibniz gained a foundation for building his geographical knowledge of Asia.

Seeking the Languages of Grand Tartary

(August 1693–December 1694)

By the summer of 1693 Leibniz had determined that he would have to turn his attention toward Grand Tartary more directly if he was to acquire any specific knowledge of its languages. But central Asia lay hopelessly beyond the reach of his correspondence networks. The only person he knew personally with any connection to that region was Grimaldi, who was long gone, probably in China by then, and unresponsive to his requests for languages anyway. From Philippe Avril, whose travel report had been published in 1692, Leibniz learned that the Grand Duchy of Moscow exerted jurisdiction over the Siberian North. He also learned that the princes of that empire jealously guarded its extended domains as top-secret, revenue-producing territory. Between Moscow and western Europe lay Poland, with which Leibniz enjoyed correspondence by means of the Jesuit Adam Kochanski. Between Poland and Hanover lay the ambitious electorate of Brandenburg. Leibniz had the acquaintance of several servants of Berlin, partly owing to the proximity of the two territories and partly because of the close connection between the two electoral courts in the person of Sophie Charlotte. Leibniz began to wonder whether, through his peers at Berlin, he might establish contact with someone inside the empire of Muscovy.

Berlin: Ezechiel Spanheim

In August 1693 Leibniz broached the subject of language with the Brandenburg envoy Ezechiel Spanheim. For a year they had corresponded on topics of Near Eastern chronology and numismatics, as well as Leibniz's work on the Este/Guelf genealogy. Leibniz's letter introducing the second preliminary dissertation is lost, but a draft of Spanheim's response indicates that Leibniz had begun to hope for some knowledge of languages between the Black and Caspian Seas and in the region of the Volga River. Spanheim endorsed this idea. Spanheim considered Leibniz's reflections "without doubt very solid and credible" and congratulated him for taking up inquiries that "have been neglected

up to now."[1] At Berlin, Spanheim had access to resources that Leibniz did not have at Hanover; he wrote that he had read Avril's *Voyage* "with pleasure" and Nicolaas Witsen's map of Tartary, "which shows us the shortest routes to China."[2] (Leibniz still had not seen Witsen's map.)

Like Leibniz, Spanheim thought that in principle it should not be a difficult task to catalog and classify the languages of northern Asiatic peoples, if only one could acquire sufficient knowledge of the languages and peoples. Moreover, such an inquiry could serve as a means of rekindling correspondence with the Muscovites, which had languished following the fall of Czarevna Sophia and the joint succession of Ivan and Peter. "It would do me a particular pleasure if by means of our correspondences with Muscovy, which are less at present than they have been in the past, we could draw some light concerning the languages of these neighboring Peoples and those of the Volga."[3] Spanheim encouraged Leibniz's syncretic tendencies, suggesting "that it is beyond doubt that all the Northern Peoples to whom are given the name of Scythian have filled in Asia and Europe with their Colonies"; that the "Scythae" and "Getae" were the same nation as the "Gothi," who succeeded them; and that this nation extended from the Black Sea to the Black Forest, at the source of the Danube.[4]

This was the year when Leibniz exchanged letters with Edward Bernard, and to Spanheim Leibniz expressed increasing skepticism regarding Bernard's etymologies. Ever agreeable, Spanheim replied that regarding Bernard's "connection between Persian and German, I admit that I too am surprised." Although Spanheim admitted no competence in the Persian language, he was willing to accept Bernard's speculation that "to attribute a common origin of both languages between Peoples so remote from each other seems more plausible than to attribute it to pure chance." Spanheim tried to be helpful, offering suggestions from the sources that he did know, ancient authors. Herodotus and Diodorus Siculus both located the Scythian homeland in Armenia, from whence they conquered the Medes. The Persians and the Parthians seemed to have been linked in some way. Given the eventual extent of the European Scythians, it seemed reasonable to include both the Germanic and the Slavic peoples in the same set. "But I am not so informed that I should engage myself here wrongly in these matters, which do not wish to be treated in any haste and require long and detailed discussion."[5]

This was too much even for Leibniz's syncretic sensibilities. Later that year Leibniz commented to Spanheim that in his correspondence Edward Bernard seemed to have softened his hard-line stance regarding the connection

between German and Persian. On the other hand, to others Bernard asserted that he had derived the Russian and Slavic languages from Persia and Armenia, just as the Tigris and Euphrates flowed from those regions. "I don't see why he attributes more to the Slavonic language than to the Germanic," Leibniz wrote to Spanheim.

At the beginning of his linguistic inquiries in the spring of 1691, Leibniz had focussed on the connection between the Germanic and Slavic languages. This had been the reason for his soliciting the Wendish Lord's Prayer from Chilian Schrader and the grounds for his excitement when he had received one at the end of May of that year. Two and a half years later he was less certain. "I find that the Britannic language (or that of the Gaelic region) has a very great connection with the Germanic language; but the connection between Germanic and Slavic is much less."[6]

The matter of geographical versus linguistic proximity raised a question: How was it that Finnish could be related to Hungarian, as had been observed, when Finnish was known to extend all the way to Lappland, while Hungarian was known to have come from the far side of the Caspian Sea? It must have been a very large nation in order to extend all the way from Lappland to the Ob River and beyond. And how was it that the languages of neighboring peoples, such as German and Slavic or Slavic and Tartar, could be so different? "It makes me believe that there must have been some nations between them who were chased out or destroyed." None of this prevented him from suspecting that all these languages originated in a common source. But the ancient authors were hopelessly imprecise. Tacitus seemed well enough informed to distinguish between Slavs and Germans, but what about the Alani, Roxalani, and others mentioned by the ancients? Were they Slavs? The term *Huns* was used as a catchall, for example, when Procopius in the sixth century referred to all the territory between Chersonesus (on the Crimean Peninsula) and the Bosporus as "held by the Huns."[7] Leibniz suspected that the Huns were different from the Hungarians, the latter only entering Pannonia after the kingdom of the Huns (i.e., the Avars) was overthrown by Charlemagne (in the 790s). But all of this was very murky.

While it was nice that Spanheim affirmed his project, Leibniz was not really after Spanheim's knowledge of content. Rather, Leibniz hoped that Spanheim, being a career diplomat in the service of Brandenburg, might have access to sources in Muscovy who could inform him more specifically about the languages of the nations on the perimeter of the Muscovite Empire and beyond in central Asia. Spanheim had not taken the hint in Leibniz's first letter of

August 1693, so in September Leibniz pressed him again.[8] In October Spanheim confirmed that neither he nor the Brandenburg government had any contacts in Moscow at the time.[9] In December, writing to Spanheim a third time, Leibniz complained, "I have written for the purpose of obtaining something of the Siberian language [note his use of the singular], but so far have received nothing."[10]

Poland: Vota and Kochanski

Leibniz pretended to himself and to others that the king of Poland had ordered the collection of linguistic samples on his behalf. Such an order Leibniz apparently inferred from Adam Kochanski's letters of February and possibly May 1692. It was true that Kochanski's Jesuit colleague, Carlo Maurizio Vota, had read extracts from one of Leibniz's letters to the king in early 1692, and it was true that the king had responded to Leibniz through Vota and Kochanski.[11] It was also true that Kochanski described the sending of a copy of Leibniz's second letter to Grimaldi to the Polish resident at Moscow and that the king of Poland was holding Leibniz's autograph of that letter for enclosure in an official dispatch to Persia at an auspicious moment. And it was true that Kochanski himself had asked the Polish resident at Moscow to inquire into Siberian and other languages.[12] But I find no evidence in the correspondence that the king of Poland himself had mandated the collection of Tartaric languages. Nevertheless, such a faux mandate grew in Leibniz's mind as months passed, and he boasted to his Italian correspondents that the king had issued such an order.[13]

But in October 1692 Leibniz's line to Poland went dead. Kochanski, his sole point of contact there, abruptly stopped responding to Leibniz's letters. In December 1693, more than a year having passed since he had last heard from Kochanski, Leibniz confided to Tentzel, "Given the silence, I suspect that Father Kochanski has died."[14] That month he attempted to rekindle his Polish connection, this time by writing to Kochanski's Jesuit colleague and royal confessor, Carlo Maurizio Vota.

It had been Vota who persuaded the Polish king of the utility of Leibniz's project, and to Vota Leibniz expressed the vision of a post-Scythic family of nations that was taking shape in his mind. Both ancient authors and modern investigations indicated that "most of the nations of Europe as well as of Asia came from Scythia," asserted Leibniz, naming the Cimbri, the Goths, the Poles and the Bohemians (both Sarmatian), the Hungarians, the Estonians, the Huns, the Alans, the Vandals, the Persians or Parthians (now, following Spanheim

from two weeks earlier, conflated as a single people), the Bulgars, the Cumans, even the Turks. "Thus these researches would go to the source of all these peoples." Consequently, to reach the common origin of nations, one should investigate the Scythians, and the best access to the ancient Scythians was through the study of languages.[15]

Leibniz asked for specimens of modern languages currently spoken in the region formerly known as Scythia. In the Polish domain, the northern languages Polish, Lithuanian, and Estonian were already well enough known, so Leibniz was not interested in them. Instead he wondered whether any of the Lipka Tartars might live within Polish domains and therefore have an easily accessible language. The northern peoples subject to the Ottoman Empire interested Leibniz, and he named the Mingrelians, the Moldavians, the Wallachians, the Bulgarians, and especially the Tartars of Crimea, where as late as the sixteenth century a remnant of an ancient German-speaking nation still remained, according to an ambassador of the Holy Roman Empire stationed at Constantinople. But even more than the Poles and the Ottomans, it was the Muscovites who "have under their Domination a great variety of Scythic peoples, such as Samoyeds, Czeremisses, Czircasians, Nogai Tartares in the region of Astrakhan, Siberian peoples and others beyond the Volga and Ob, and they have commerce with the Kalmuks, Uzbecs, and Mongols as well as with the Bogdoi and Niouchi, who inhabit the most eastern part of Tartary and recognize the Monarch of China." It was in gaining access to the languages of these peoples where Leibniz hoped Vota could help. Vota, after all, had made the initial suggestion to the Polish king that linguistic investigation become a royal mandate, and Leibniz hoped Vota could transform that verbal mandate into real action.[16]

Leibniz restated the strategy that he had expressed to Kochanski and Grimaldi in 1692: that translations of the Lord's Prayer might be obtained easily at diplomatic and merchant centers and that the Lord's Prayer must be accompanied by an interlinear and word-for-word translation in some known language. "If some of the most common words could also be obtained in these languages, like parts of the human body, family relations, numbers, animals, facts of life and other necessities, elements, this would be even better." Leibniz pleaded, "One word from your Reverend Fatherliness . . . would do the trick." Conceptually this was an easy task. It required little curiosity on the part of those who acquired the language samples and hardly any expense on the part of the king. "The public would owe these discoveries to His Majesty, and your Reverend Fatherliness would only have to do a small part."[17]

Leibniz routed this hopeful letter to Vota via the Hanoverian administrative center at Celle. From Celle it was forwarded to the Hanoverian ambassador at Vienna, who handed it to the Polish ambassador at Vienna, who in turn routed it to the Polish court, promising delivery three or four weeks hence.[18] In a note confirming the safe delivery of Leibniz's letter, the Hanoverian ambassador assured Leibniz that on the word of the Polish ambassador himself, Kochanski was indeed alive and well. But for whatever reason, Kochanski wasn't writing. Nor would Vota ever respond to the long and detailed argument that Leibniz restated on behalf of linguistic inquiry into the languages of Scythia.

Sweden: G. D. Schmidt and J. G. Sparwenfeld

Berlin had no representative in Muscovy in the mid-1690s. Poland was offering promises but not actual data regarding the languages on the Muscovite periphery. Leibniz's communications with Sweden were not getting anywhere either. For a couple of years he had been trying to get samples of Scythian languages from the Hanoverian resident in Stockholm, Gustav Daniel Schmidt. Leibniz explained his linguistic project to Schmidt, prodding him to disseminate it to prominent scholars and ministers, such as Olaus Rudbeck, the count of Oxenstierna, the physician Urban Hiaerne—anyone who might be able to inform his project. But what he really needed was access to Johan Gabriel Sparwenfeld (1655–1727), a former attaché to an embassy to Moscow in the 1680s who in the early 1690s had been sent by the king of Sweden on an expedition in search of Visigothic and Vandal antiquities in France, Spain, North Africa, and Italy. Leibniz had heard of Sparwenfeld just after his return from Italy in 1690, before he took up the linguistic project.[19] Subsequently Baudrand had mentioned Sparwenfeld's project, as Leibniz learned from Magliabechi, and Leibniz had inquired of Nicolas Toinard, at Paris, whether Sparwenfeld had actually confirmed that Gothic was Scandinavian (and if so, then why had the Ulfilas translation been discovered at Verden in Westphalia?).[20] Clearly, Sparwenfeld was a person whose knowledge Leibniz needed.

In November 1692 Leibniz had written to Schmidt, at Stockholm, asking to be put in touch with Sparwenfeld upon his return. That letter went unanswered. Leibniz prodded Schmidt again the next summer, reexplaining his project in terms substantially similar to those he expressed to Spanheim and Vota.[21] It was a year after his initial attempt before Leibniz finally received a response from his colleague Schmidt, and although Schmidt sheepishly acknowledged his previous failure to respond, he explained that Sparwenfeld

had not yet returned to Sweden, having stopped at Vienna to visit the Matthias Corvinus library.[22] In January 1694 Leibniz continued to press Schmidt, asking him to make his desire for Scythian languages known to the Swedish resident at Moscow (there must be one, right?) and also to a diplomat named Fabritius whom Leibniz understood had recently returned from Persia, where the Swedes had promised a gift of armaments in the form of three hundred cannon to be used against the Turks. "If this Mr. Fabritius is at Stockholm, no doubt one could learn some things from him," Leibniz hinted.[23]

At the end of January 1694 Leibniz wrote to Daniel Larroque at Paris, having heard that the orientalist Barthélemy d'Herbelot knew the language of the Oriental Tartars. Leibniz asked Larroque to ask d'Herbelot to confirm that the Oriental Tartaric language had some connection to Persian, as Avril had recently reported in his *Voyage en divers etats d'Europe et d'Asie*.[24] But uncharacteristically, Larroque, with whom Leibniz had enjoyed a correspondence of three years running, never replied either. It would be several months before Leibniz learned that Larroque had been imprisoned in the Bastille, where he would remain for most of the rest of the century. By the end of 1695 d'Herbelot was dead. Knowledge of Asiatic languages was hard to come by indeed.

First Fruits: Witsen's Map

In that dark winter of 1693–94, Leibniz could not have known that in fact the network he had been building for the past two and a half years was beginning to gain traction. In December 1693, his long-shot letter to Grimaldi, the exemplar he had sent through Kochanski in March 1692, actually caught up with the world-traveling Jesuit at Goa in India. It would be another year and a half before Grimaldi's response arrived in Hanover, and as usual the response would offer only more promises and no data. But still the letter stands as evidence that there could be scholarly communication over vast distances and in the face of nearly insurmountable odds.

Moreover, in April 1694 Leibniz received a letter from the Jesuit Theobald Isensehe confirming both Grimaldi's itinerary and his arrival at Goa.[25] This letter seems to have been written without any solicitation by Leibniz. Rather, by then enough Jesuits at Rome were aware of Leibniz's interest that when they themselves received news of Grimaldi, they passed it along to Leibniz. This was privileged knowledge; Leibniz would later express to Kochanski once their correspondence began again, "It's a wonder you have no news of Grimaldi, since Rome wrote to me about him."[26] Even if Leibniz was receiving meager linguistic data, simply the volume of his correspondence and the

extent of his network in terms of direct correspondents and of questions posed to third parties within reach of those correspondents but beyond Leibniz's own were making Leibniz an authority on things Asiatic.

Nevertheless, progress must have seemed slow. By the spring of 1694 it had been two years since Justel, Magliabechi, and Baudrand had each notified Leibniz about the publication of a new map of Grand Tartary by Nicolaas Witsen. Spanheim had examined a copy of the map at the Brandenburg court in Berlin, but Leibniz still had not seen it. Even a map printed by a prominent merchant in a major European publishing center was hard to find. (Witsen was a director of the Dutch East Indies Company in what was still the Dutch Golden Age, and he served several times as mayor of Amsterdam as well.) Leibniz placed a request for Witsen's map with the Hanoverian resident at The Hague, but even he could not find it for sale anywhere. "It has been some time since you wrote to me for to have a map of Tartary of the edition of Mr. le Bourgemaistre Witsen," the resident Heinrich Hüneken wrote in March 1694. "I have searched everywhere, but it is nowhere for sale. But the said Bourgemaistre, who is a friend of mine, has been good enough to present me with one in order to send it to His Electoral Highness our Master, which is enclosed here, and I address it to you for presenting it to his said Highness."[27] At last some real data, and also an opportunity to gain a new correspondent.

Even in its own day, Nicolaas Witsen's map of northern and eastern Tartary was an expensive item. Not suitable for general consumption, it was a presentation item for princes and heads of state. It was also enormous. Leibniz described it to Andreas Morell as "as big as the door of a house."[28] A trophy suitable for framing, to Leibniz the map was a research item to be mined for its ethnolinguistic geography.

Immediately Leibniz wrote directly to Witsen thanking him for the gift of the map and assuring him that he would present it to the elector as soon as he returned to Hanover. At the same time, he seized the opportunity to pitch his linguistic project to a man at the hub of the global Dutch shipping concern. The working hypothesis he presented to Witsen was essentially similar to what he had offered to Spanheim and Vota the previous December: that "the Alans, Goths, Huns, Slavs, Hungarians, Tartars, Turks and even the ancient Persians all emerged from Scythia, and conquered much of Europe and of Asia." Since the map made Witsen an authority on the locations and peoples of Grand Tartary, Leibniz posed to him as questions what he had stated to Vota as fact: Was it the case that the "language" (still singular) of "the Siberians" and that of the Samoyeds agreed with those of the Finns and Lapps? Did

the people of Juhra have a language approaching Hungarian ("as Michovius pretends," Leibniz qualified), or was the original seat of the Hungarians closer to the Caspian Sea? Was there any remnant of Busbecq's Germanic nation in Taurica? Did the language of the Crimean Tartars agree with that of the Mongolian Tartars who overran much of Europe and Asia under Genghis Khan? What language did the Circassians speak? How was it that the Kalmyks and the Mongols spoke similar languages despite the distance between them? And what he had hoped to learn from d'Herbelot through Larroque, was Avril correct in reporting that the Bogdoi language of Oriental Tartary was similar to Persian?[29]

Like Justel throwing water on Leibniz's eager hope for knowledge from Jesuit missionaries, Witsen doused Leibniz's syncretistic tendencies regarding the harmony of languages and a common origin of many nations with a resounding no. Where Spanheim had read Avril's *Voyage* "with pleasure," Witsen saw only errors. The Samoyed language, wrote Witsen, "is not even close . . . to that of the Finns or Lapps." In the 1950s, Kurt Müller was probably correct when he described Witsen as "einer der besten Kenner Rußlands" (one of the best informed about Russia),[30] but Witsen confessed to Leibniz that "with regard to Juhra, it has been 30 yrs. since I was in Moscow, but from various sources I hear that the Muscovites glory in the pretension that they, like the Hungarians, trace their origin to Juhra; but concerning language, I am assured that no traces nor any vestige are found of the Hungarian language of the present." There was no trace of any Germanic nation in Crimea nor its environs, "or at least it is with a very great transformation." Witsen knew little about Circassian. "The Kalmyks and Mongols are very different from each other: they have two entirely different and distinct alphabets [*lettres*] and vocabularies [*mots*]." Avril's association of Bogdoi with Persian was entirely false, "and you have reason, Sir, to believe that this report is not of great rigor, because this Rev. Father is in error here as in many other places. When I have something better, I shall take pleasure, Sir, in letting you know."[31] Leibniz would not hear from Witsen again until 1697.

It was becoming increasingly apparent that Leibniz would have to get his knowledge directly from Muscovy. In fact he had known this for some time. Without neglecting the networks he had already established with the Jesuits at Rome and Paris, antiquarians at Florence and London, and mathematicians in the Netherlands, Leibniz increasingly directed his attention toward Berlin and parts north and east.

Murder in Moscow (January–February 1689)

In January 1689, in the German quarter of the city of Moscow, two young men came to blows over a woman. The German pulled a sword on his opponent, but the Brabanter countered with a pistol and shot the German. The report of the gun and the blood on the floor brought the Brabanter immediately to his senses. With no chance of escaping Moscow, the Brabanter, a Catholic who spoke both French and Dutch, fled to the Jesuit house at 2:00 a.m. At daybreak the authorities arrived to arrest him on charges of capital murder. His mortal life forfeit, the Brabanter held out hope for the salvation of his immortal soul, and to his good fortune, two French Jesuits happened to be in the city. One of them was Philippe Avril.

The drama in the German quarter caused a minor sensation at the Muscovite court, which was already inundated by sparring foreign diplomats. Interceding as a friend of the court, the Polish resident envoy, a Catholic, argued that the young Brabanter had acted only in self-defense. A faction of boyars at the court suggested a plea bargain in which the young man would convert to Russian Orthodoxy and join the army. But the prosecution was aided by the Dutch expatriate community (they had conveyed the Brabanter from the Netherlands to Archangel) and by an envoy of the Calvinist elector of Brandenburg, who demanded justice for the murdered German.

Avril's missionary colleague, Antoine de Beauvollier, acted as the condemned man's confessor. Riding in the sled that conveyed the condemned to the execution site, a square not far from where the crime was perpetrated, Beauvollier prepared the young man to die. He heard his final confession, assured him of his spiritual pardon, and taught him what to pray. The young man begged Beauvollier not to leave him. Standing inside the throng that gathered around the execution, Beauvollier shouted spiritual exhortations for the young man to repeat as the executioner's sword fell and severed the young Brabanter's head from his body.

Avril had hoped for a better reception in his second attempt to gain entrance to the Muscovite Empire. Armed not only with passports and letters of recommendation from Louis le Grande but even with letters patent deputizing him as a royal mathematician, Avril returned in the name of a conquering king. Beginning in the fall of 1688 and continuing through the winter and spring of 1689, the armies of Louis XIV won glory in the middle Rhine valley

at the expense of German city after German city. What sovereign court would not want to associate itself with such overwhelming power and might?

Unfortunately, Avril's letter patent probably did not help his cause. Had the Muscovite embassy to Paris—the one that escorted Avril and Barnabé out of the country and that was accompanied by wagonloads of Siberian furs—been expelled for abusing its diplomatic immunity by hawking furs? Or had it been expelled because the attempted alliance negotiations had failed?

At Moscow itself the court was unstable. Czarevna Sophia acted as regent during the minority of her brother Ivan and her half-brother Peter, but the families of the senior nobility, known as the boyars, were divided into factions that pitted Ivan's Miloslavs against Peter's Narishkins. Even if he personally favored Avril's project to cross Grand Tartary to China, as Avril thought he did, Sophia's prime minister, Galitzin, stood on thin ice and dared not cross the boyars. Avril reports a rumor that someone left a coffin outside Galitzin's residence with a note stating that such would be Galitzin's next abode should the spring's campaign against the Black Sea Tartars go as poorly as the previous one had. (And so it would.) The Jesuits housed at Moscow reported a rumor that Sophia intended to marry Galitzin and to depose Ivan and Peter altogether. And eight months hence, in September 1689, Sophia and Galitzin would find themselves deposed, Sophia confined to a monastery and Galitzin shipped out to darkest Siberia. One of the first acts of Czar Peter, whose Narishkin faction was closely allied to the patriarch of the Russian Orthodox Church, was to suppress the Jesuit house at Moscow and expel its two priests from the realm on forty-eight hours' notice.[32] This was precisely the moment when Philippe Grimaldi petitioned for a visa to cross Siberia to China. He could hardly have arrived at a less auspicious moment.

But for Avril it was even worse. Ostensibly Johann Reyer, the Brandenburg envoy who argued for the condemnation of the young Brabanter, had come to Moscow to announce the accession of the new elector, Friedrich III (r. 1688–1713). In fact Reyer had come to forge a secret alliance between Brandenburg and Muscovy. Avril thought that alliance had to do with a Prussian-Lithuanian marriage. Avril seems not to have known that Reyer was trying to persuade the czars to join the Grand Alliance against the French. What Avril thought was a glorious conquest at Philippsburg on the Rhine turned out to be only a minor casualty in a much longer conflict (1688–97). The scuffle in that house in the German quarter of Moscow between two young men of confused religious identity—was Rouillé, of Brabant, Dutch, French, or Belgian, Calvinist, Catholic, or nonobservant (until Beauvollier got hold of him)? Schulz,

the German, was Catholic by confirmation, Calvinist by practice, but in love with a Lutheran, whom he intended to marry—served as a microcosm of the grand strategy that sent the Calvinist William of Orange to England and taught Catholics, Lutherans, and Reformed in the Holy Roman Empire to set aside religious differences in favor of political commonalities for the first time. Avril was angry and confused when his second visa application was rejected in February 1689. He suspected that the Dutch-Brandenburg cabal at the court of Muscovy was in some way retaliation for the Jesuits' role in the expulsion of the Calvinists from France in 1685. Whatever the cause, "it is certain that never any Affair was so long under Examination as ours was," he lamented, "considering that the whole stress of it consisted only in granting, or refusing leave, to some poor Missionaries to pass through the Dominions of the Great Dukes, in order to preach the Gospel among the Chinese."[33]

"Desiderata circa linguas quorundam populorum"

Finally in 1695 the ice began to break. In 1693 Leibniz published a *Codex Juris Gentium Diplomaticus*, an edition of previously unpublished medieval documents—charters, diplomas, privileges—that he had uncovered during his grand tour and in the course of his researches into the Guelf-Este genealogy. Compiled together, these constituted a summa of international and territorial law during the European Middle Ages. He had dozens of copies printed, and these he sent around to his correspondents and to potential patrons throughout Europe. Already thinking about publishing a second volume, he encouraged the recipients of the first volume to send him any interesting material that he might be able to incorporate into the second. The occasion of sending the volume also presented an opportunity to reiterate his pursuit of Scythian languages, something that most of the recipients had already heard at least once before. To this end, Leibniz formalized his linguistic wish list in a "memoire" that he sent in three directions in the winter and early spring of 1695, first to Vienna and Berlin and then to Antoine Verjus and the Jesuits at Paris.[34] This memoire was the famous "Desiderata circa linguas quorundam populorum" (Desires concerning the languages of certain peoples), an English translation of which is provided in appendix I.[35] Leibniz arranged for a version of it to be published posthumously in his linguistic collection edited by Feller (1718), and later in the eighteenth century Dutens reprinted it in his edition of Leibniz's *Opera omnia* (1768). When historians of linguistics or philosophy address Leibniz's linguistic inquiries, they usually start with this document.

Recently historians of linguistics have suggested that Leibniz's "Desiderata" was central to the formation of linguistic science in the eighteenth century. The significance pertains to the fact that the document was printed at two key moments in the history of linguistics, 1718 and 1768. That is, the "Desiderata" acquired an authority in itself apart from its actual presentation to individual recipients by Leibniz in the 1690s. In this document Leibniz codified two methods of linguistic comparison, Lord's Prayers and word lists. Trautmann calls them "technologies." Given that almost all polyglot word lists in the eighteenth century were organized with categories and terms nearly identical to those in Leibniz's "Desiderata," Trautmann speculates that this document might have been their methodological source.[36] Trautmann suggests that it was Leibniz who established the terms that were appropriate for comparison and also Leibniz who articulated the principle on which those down-to-earth terms were selected. The language specimens should display "the words and manner of speaking peculiar to" the people group in question, "that is, not as educated people speak but as the commoners speak."[37]

In the "Desiderata," Leibniz requested two specific kinds of language samples, Lord's Prayers and word lists. These he itemized in twenty-four points, the first sixteen addressing the Lord's Prayer and points 18–23 suggesting comparable terms under six headings. Points 1 and 24 constitute an explanatory preamble and a concluding comment, and point 17 serves as a transition between the Lord's Prayers and the word lists. This "memoire," as Leibniz called it, was a template that he altered to accommodate the specific audience to whom he was writing. Thus, point 1 as addressed to Bodo von Oberg, the Hanoverian envoy resident at the imperial court at Vienna, asked specifically for the language of the Siebenburgen Saxons in Transylvania, who lived under the jurisdiction of the Holy Roman Empire. This request being inappropriate for the Jesuits at Paris and the Brandenburgers at Berlin, Leibniz replaced it with a preamble on the utility of using language to reconstruct the origins and migrations of nations. Other minor adjustments appear in the three surviving versions, and these variants are noted in the critical edition in A.I.11, #125.

The language and content of the Lord's Prayer request we have seen before, as Leibniz had been developing it in his correspondence over the previous three or so years. By the end of 1694 he had given up hope that the order of the Polish king Jan III Sobieski to collect language samples would be effective. Kochanski had informed Leibniz that although the order had been given, unfortunately the Polish resident at Moscow, who would have put the

order into effect, had returned to Poland shortly thereafter. To J. J. J. Chuno at Berlin, Leibniz confided that Kochanski was becoming old and losing influence at the court, rendering Leibniz's contact in Poland, although still friendly, unsuitable to his linguistic ambitions. But Leibniz had known for some time that it was access to the Muscovite Empire that he needed. The "Desiderata" was drawn up in order to try to breach the Muscovite frontier on different fronts. A southwestern attack could be launched from the imperial court at Vienna. A northwestern attack he would launch from Stockholm, specifically in the person of Johann Gabriel Sparwenfeld, whom Leibniz struggled to reach for some time before he finally succeeded at the end of 1695. He continued to believe that a direct assault could be launched from Berlin, even though Spanheim had entirely failed to find a contact for him in or near Moscow. Given the maneuvers of the French Jesuit missionaries in the Persian and Ottoman Empires, Leibniz attempted an end-run by way of Paris. Finally in 1697 he actually got the attention of a genuine Muscovite in the person of Pierre Le Fort, but as we will see, a great deal of effort would be required before he actually got through. Each of these five targets of the "Desiderata" is addressed below, but first a brief analysis of the document is in order.

Points 2 through 12 (also point 1 in the case of the Siebenburgen exemplar sent to Vienna) established a linguistic geography. First the Ottoman Crimea, and specifically whether there was any confirmation of Busbecq's sixteenth-century report of a Gothic remnant there. Second, non-Slavic Muscovy. This section was bookended by specific references to non-Slavic languages in four sets: Siberia, the north shore of the Black Sea, the north shore of the Caspian Sea, and Tartary, which Leibniz defined as extending all the way from the Czeremise of the upper Volga, the Nogais of the lower Volga, and the Circassians of the North Caucasus to the Kalmyks, Uzbeks, and Mongols beyond the Caspian Sea and almost to China. The third linguistic-geographical section addressed Hungary, asking, first, whether there was any trace in Hungary of Cuman refugees, who had been forced westward in the thirteenth century by the migrating Tartars; and second, whether the report could be confirmed that an abducted Hungarian Jesuit might have heard a language similar to Hungarian on the far (eastern) side of the Caspian Sea.[38] Finally the fourth linguistic-geographical section addressed Slavic Europe, not the northern Slavs of Poland, Bohemia, and Russia but the southern Slavs in Pannonia and the Balkans. It was reported that while the Slavs who lived among the Hungarians, Turks, and Greeks constituted a single set, these southern Slavs were supposedly distinct from both the Bulgarians and the Albanians.

Leibniz wanted to know whether it was true that the Albanian language spoken in Epirus was in a class by itself and whether there was any evidence that the Bulgar language had come from Scythia.[39]

Points 13 through 16 explained the method that should be employed in collecting the language samples and the utility of that activity. The Lord's Prayer in the native language should be transliterated into a known (i.e., European) alphabet, and the transliteration should be accompanied by a verbatim interlineated translation in a known language. This activity could be useful to professional translators; to merchants, whether Jewish or Christian, Latin, Greek, or Armenian; and to missionaries, for whom translating the Lord's Prayer could be a pious activity "that all tongues might praise the Lord." Given that he had found it almost impossible to get anyone to do this work, Leibniz omitted what he had been suggesting in his letters, that this work should have been easy. Additionally, he admonished the recipient not to repeat work that had already been done, as the Lord's Prayer was already known in Slavic, Hungarian, Wallachian, Livonian, Turkish, Persian, Armenian, Chinese, and other languages. It was the Tartaric languages, spoken on the periphery of the northern and central Asian empires, that were needed. And, the translators must not neglect to record the name and location of the people who spoke the language in question.

In his letters Leibniz had suggested that for those languages so remote or whose concepts of the divine were so distant from monotheism that the Lord's Prayer could not be translated into them, a workable alternative might be to collect a vocabulary list. In the context of this set piece, the "Desiderata," Leibniz presented six categories of concepts that he hoped might be collected along with the prayers. That is, Leibniz here presented the word list as augmenting, not replacing, the Lord's Prayers. In lieu of a formal study of grammar, the Lord's Prayer at least offered formulaic turns of expression that were a stronger basis for comparison than mere words abstracted from all grammatical or semantic context. But the Lord's Prayer did contain an impressive array of terms for so brief a formula. Its nouns alone included *father*, *sky*/*heaven*, *holy*, *name*, *kingdom*, *wish*/*desire*, *earth*, *day*, *bread*, *debt*/*debtor*/*offender*, *temptation*, *evil*, *power*, *glory*, *future*/*eternity*. Its verbs included the concepts *be*, *come*, *will*/*desire*, *do*/*make*, *give*, *forgive*/*reconcile*, *lead*, *save*/*rescue*/*deliver*. Such a list should be limited to words that referred to tangible and universal aspects of the human experience: words referring to body parts, for example, which all people share; words referring to family relationships, like *father*, *mother*, *man*, *woman*, *son*, *daughter*, as well as to more complicated

marital relationships, like *father-in-law*; words referring to necessities of life, like *food* and *drink*; and words referring to the natural world, like *sun*, *moon*, and *stars*, as well as *sky* and, by extrapolation, words for the being who lived in the sky as god.

The "Desiderata" in Vienna

After composing the "Desiderata" memoire around the beginning of 1695, Leibniz then sought to send it to points east. Vienna, the capital city of the Holy Roman Empire, lay directly on the Danube migratory route that linked the Black Sea to central Europe. Vienna claimed jurisdiction over a multiethnic mix of peoples in the Balkans, Romania and Wallachia, Hungary and Bohemia. The imperial government had frequent contact with the Ottoman Turks, with whom it was frequently at war, and enjoyed longstanding formal relations with Muscovy, with whom it was allied against the Ottomans. As a capital city, it attracted merchants from as far away as the Persian Empire, and these, in addition to diplomats and others in government service, Leibniz considered a plausible source of linguistic knowledge. Leibniz sent the "Desiderata" to his colleague in the Hanoverian government, its envoy at Vienna, Bodo von Oberg.

Writing to Oberg unannounced and for the first time, Leibniz asked whether he might trouble Oberg on "a matter of simple curiosity" that pertained to the Guelf history. "We would like to know the particularities regarding languages of the peoples around Tartary and in Tartary itself." This knowledge would serve to illuminate the origin of nations, particularly those of the northern Orient (*l'orient Septentrional*) who had frequently overrun Europe and Asia. "I enclose here a memoire in Latin of which copies could be communicated to those who could assist it. I am hoping for small samples of each language, and the best would be the *Pater noster* in the language." Leibniz clarified that he was seeking samples from distant and unknown languages, not those that were already assimilated under imperial administration. Leibniz hoped that Oberg might make copies of the memoire and distribute them to a variety of persons: public translators and missionary monks, on the one hand, but also merchants who passed through Poland and Muscovy on their way to Asiatic lands. He imagined that at Vienna there must be Armenian and Jewish merchants who had either direct or indirect commerce with the Ottoman city of Trebisond, on the southeastern shore of the Black Sea; and with the Muscovite cities of Astrakhan, at the mouth of the Volga on the Caspian Sea, and even Tobolsk, the Muscovite capital of Siberia, beyond the Ural Mountains.[40]

Oberg promptly responded that he had placed the "Desiderata" in the hands of Daniel Erasmi, Braunschweig-Lüneburg's agent resident in Vienna.[41]

Three months passed before Leibniz received any response. When a reply finally did come, Erasmi apologized for the delay. He blamed it in part on an ear infection that had kept him indoors all winter but mostly on the difficulty he had had in locating anyone who could answer Leibniz's questions. Neither the Jesuits nor the university nor the monasteries nor the travelers and merchants had anyone who could say anything about the languages of Scythia and Tartary. At Vienna there were no merchants who traveled to Moscow, Poland, or the Asiatic North. Nor did Armenian merchants come as far as Vienna, and Jews had been expelled from Vienna a generation earlier. Finally, Erasmi had turned to the imperial interpretors. The best of these was Franz de Mesgnien Meninski (1623–1698), a native of Lorraine but a scholar of Arabic, Persian, and Turkish who in 1680 had published a three-volume *Thesaurus* of those languages that included a grammar and a lexicon. Although exotic, these languages were known in Europe at least on a scholarly level, and Leibniz did not need them for his Scythian project. Despite Meninski's protestations that he knew nothing of the languages of Scythia and Tartary, Erasmi cajoled him into taking a look at Leibniz's "Desiderata." Erasmi made a copy of the document, leaving broad margins where Meninski could write his answers to the questions. Then Erasmi nagged Meninski every time he saw him until Meninski finally returned the page empty, saying that he knew nothing about the languages of central and northern Asia.

Undaunted, Erasmi tried the other imperial interpretor, Marco Antonio Mamucca, a native of Constantinople, whom he also gave a broad-margined exemplar of Leibniz's "Desiderata." At least Meninski had had the courtesy to admit that he could not help. "Aber er ist so faul," Erasmi said of Mamucca, that Mamucca first denied that he knew anything and then hid until Erasmi finally gave up on him.

Finally, some assistance came from the professor of Oriental languages at Vienna, Johann Baptist Podestà. A Tyrolean from a small town on the Lago di Garda, Podestà had the same three languages as Meninski: Turkish, Arabic, and Persian. Podestà did actually write answers to Leibniz's "Desiderata" in the margin of the page Erasmi made for him, as well as additional comments on the other side of the same folio page.[42] From a sixteenth-century history of the deeds of Suleiman the Magnificent by Mustafa Ibn-Gelal, Podestà offered Leibniz confirmation of Busbecq's report of hearing Germanic-speakers at Constantinople when Busbecq represented the Holy Roman

Empire there. Those German-speakers had come from the Kipchak Khanate of the Golden Horde, whose domains encompassed the Volga River basin, on the north shore of the Caspian Sea, and extended eastward beyond the Aral Sea. It would not be surprising to find Germanisms mixed into the soup of languages spoken in that vast region. Podestà described the Kipchak language as half Persian, half Oriental Tartaric, "and the Persian language has many Germanic words mixed in." Podestà suggested that this must have been where the Kipchak envoys had gotten the Germanic words that Busbecq heard. There were standing relations between the court of the Golden Horde and the Ottoman court at Constantinople. Suleiman had recently sent legates out to the Golden Horde to announce his victories in Hungary, and Kipchak envoys had been sent to him in return. In response to Leibniz's request for the names and specific locations of the peoples in question, Podestà reminded him that the Tartaric hordes in the Volga region were nomadic and had no fixed residence.

Podestà offered news from a second Turkish source as well, a history by Mustafa ibn Husseini al Genabi. The languages of Muscovite Tartary ranged from more Turkic in the west to something mixed with Chinese Tartaric in the east. It was more civilized around the north shore of the Black Sea, but further east the Circassians and the Kalmyks spoke a barbaric mixture of Tartaric and Muscovitic together with Trebizond Turkish and Georgian, or "Iberian." Beyond these, the language of Magna Hungaria (properly called Magyar) was indeed similar to the Hungarian language in Europe. Podestà pointed out that it had nothing to do with "Hunnish," and it was entirely different from the semi-Persian, semi-Chinese Tartaric language of the Kipchak Khanate. Finally, Podestà added, it was the Chinese Tartars who had conquered China itself in the preceding generation.[43]

Without an adequate linguistic and ethnographic map, Podestà's protean description of the several Tartaries extending from eastern Europe to central Asia and the Far East must have been very difficult to decipher. Erasmi was skeptical of its accuracy and of how useful it might actually have been to Leibniz. After all, most of it was drawn from al Genabi, "his war-horse" (*sein cheval de bataille*), as Erasmi put it, although he probably intended the phrase ironically, like *one-trick pony*.[44]

In addition to Podestà's completed questionnaire, Erasmi enclosed in his letter of May 1695 the notes he had made when he interviewed the servant of a prince from Siebenbürgen about the Saxon language spoken there. The servant recited the Lord's Prayer in his dialect, and Erasmi copied it down

phonetically. Erasmi asked him to say, "I'm going to the market to buy meat" and wrote that down too, along with a few other words and phrases. He reported that the Siebenbürgers considered other Germans to be "frog-eaters," as if unduly influenced by the French. The Wallachians were referred to by the Siebenbürgers as "Roman," a designation the Wallachians supposedly accepted themselves. To make the point, the Siebenbürgisch servant offered some Italianate phrases that Erasmi wrote down.

"I am truly sorry that I can give so little satisfaction after so long a delay," Erasmi apologized to Leibniz. "But please believe that it is not a lack of eagerness or loyalty." His winter illness had not helped the matter, but Erasmi had done a lot of legwork in Vienna on behalf of Leibniz's linguistic ambitions even if the results were meager.

Assembling *Novissima Sinica*

(February–September 1695)

In April of 1697 Leibniz published *Novissima Sinica*, an anthology of Jesuit reports from the Far East that represented "the latest news from China." Containing six short texts translated from French into Latin plus a preface of his own, the little volume weighed in at about two hundred octavo-sized pages. *Novissima Sinica* is Leibniz's most significant single work on the Far East, indeed his most significant on Asia. Since the end of the Cold War and the rise of China as an economic and cultural power of global proportions, scholars have taken an increasing interest in Leibniz's engagement with China at the beginning of Europe's Enlightenment.[1] Like Leibniz's "Desiderata circa linguas quorundam populorum," the formalized request for Lord's Prayers and word lists, *Novissima Sinica* emerged specifically from his linguistic inquiries pertaining to the second preliminary dissertation to *Origines Guelficae*.[2] Although Leibniz's engagement with China symbolizes his broad-minded cosmopolitanism as a citizen of the republic of letters, *Novissima Sinica* was not formulated as part of a preconceived philosophical universalism.[3] Rather, the core documents of the anthology more or less fell out of the sky and into his lap. Those documents planted in his mind the germ of the idea that became the book. And those documents came from an unexpected source, Berlin by way of Königsberg and Moscow.

The documents Leibniz obtained from Berlin and points east also placed him in contact with the Jesuits of Paris, and specifically Antoine Verjus, whom he had been keen to add to his correspondence network for a couple of years. Leibniz gifted copies of his *Codex Juris Gentium Diplomaticus* as an icebreaker that he hoped would provoke an invitation to send his "Desiderata" memoire to Berlin and possibly to Moscow. Through pure luck, Leibniz met two civil servants eager to supply him with linguistic knowledge. Although they were able to obtain very little concerning the languages of Grand Tartary, they did send him what curiosities they could find. And Leibniz, enterprising as always, found ways to use those curiosities quite apart from his initial intent of

comparative linguistics. It was through his new contacts at Berlin that Leibniz obtained the material that would finally put him in touch with the Jesuits of Paris and of China.

The core documents were two letters from Jean-François Gerbillon to his Jesuit superiors at Paris; a report by Adam Brandt of Lübeck, who was part of an embassy caravan from Moscow to Beijing led by Elizar Isbrant Ides in the early 1690s; and Ferdinand Verbiest's *Elements of the Tartaric Language*. Leibniz first learned of the existence of these documents in March and April of 1695, but it would be months before he actually held them in his hands and years before he understood what it was that he held. Both Leibniz and his informants were confused by what they had found. Gerbillon's letters were initially announced in the singular, as one letter addressed to François d'Aix de La Chaise. Only months later did it become evident that there were in fact two letters, the second addressed to Antoine Verjus. Because of the similarity of subject matter of the two letters and because the pages were sent in multiple installments, J. J. J. Chuno, Leibniz's source, did not know exactly what he had sent. The similarity of the names Brandt and Isbrant also caused confusion. Was the report from the ambassador himself or from a less capable servant? And which was the Tartaric language of the grammatical treatise? Not until February 1697 did Leibniz understand what he had, and in December 1697 pieces were still coming in.

Cold Calling across the Republic of Letters

Even within the Hanoverian diplomatic community, when placing an inquiry on official business Leibniz did not simply draw up a questionnaire and impose it on a ranking nobleman. In January 1695, when he sent his "Desiderata" memoire to Vienna in the care of the Hanoverian ambassador Bodo von Oberg, Leibniz appended the memoire as if an afterthought, suggesting linguistic knowledge as a favor that might be returned for the gift of Leibniz's *Codex Juris Gentium Diplomaticus*. Leibniz employed the same technique when he sent the "Desiderata" to Berlin, also in January 1695: He sent the *Codex Diplomaticus* as a gift, as well as his linguistic interests subordinated as a kind of afterthought. At Berlin, Leibniz's best contact was Ezechiel Spanheim. But Spanheim had failed to find out who represented Berlin at Moscow. Given the many liaisons between Brandenburg and Muscovy, there must surely have been an agent or resident somewhere in that empire. So Leibniz approached Berlin from a different angle. His target this time was Eberhard Christoph Balthasar Danckelman (1643–1722).

Danckelman was the lifelong mentor of the Brandenburg elector Friedrich III (1657–1713, r. 1688–1713), whom Danckelman had tutored in childhood and advised while crown prince to his father, Friedrich Wilhelm, the Great Elector. Since 1688, when Friedrich III had begun ruling as elector in his own right, Danckelman had risen quickly as his most capable and most trusted minister. Recently Danckelman had had charge of Cleves, a territory in the Rhineland just downstream from Düsseldorf that by heredity belonged to the House of Hohenzollern, which also ruled Brandenburg and the eastern Baltic territory of Prussia. Leibniz had corresponded briefly with Danckelman while he was at Cleves. Now, a few years into his reign, Friedrich III had called his mentor back from Cleves to help him run the larger, more complex territory of Brandenburg at Berlin. Danckelman had been appointed Friedrich III's prime minister and *Oberpräsident* of his Geheimer Rat (Privy Council). When Danckelman returned to Berlin, he brought with him a very capable secretary whom he had acquired in the Rhineland, Johann Jacob Julius Chuno. With Danckelman's promotion to the head of the Brandenburg privy council, Chuno by default became the secretary of state.

Given the strongly hierarchical structure of court society during the Baroque, one did not simply send a letter out of the blue to the prime minister of what was rapidly becoming one of Europe's great powers. And certainly one did not accompany such a letter with a list of demands on arcane subjects like the languages spoken in "Scythia." One had to proceed delicately, inquiring tentatively of civil servants near one's own rank and with whom one already had some kind of relationship. These foreign contacts could then inquire among persons within their networks but beyond the reach of Leibniz. Thus Leibniz sent the copy of *Codex Juris Gentium Diplomaticus* to Danckelman's secretary, Chuno. In a cover letter, he congratulated Chuno on his promotion. He then asked Chuno to ask Danckelman a question about law (Danckelman's area of expertise). He subordinated the linguistic request in a postscript. In order to establish his credibility in terms of both scholarship and the extent of his network of correspondents, in that postscript Leibniz offered his Asiatic résumé, sketching what he knew of the extent of the Muscovite domains all the way to the Amur River and China, as well as his conversations at Rome with a Jesuit come from China (Grimaldi) and the Jesuit in Poland who had presented his project to the king there (Kochanski or Vota). Leibniz asked Chuno to mention the project to Danckelman in his new position of power, fishing for an invitation to send his list

of desiderata to Danckelman. He also suggested that the Electorate of Brandenburg must have a resident or agent at Moscow who could assist.[4]

In fact Danckelman was the wrong person to ask about Asiatic languages. His secretary, Chuno, explained that Danckelman was extremely busy as the Brandenburg elector's chief cameralist and that he had little interest in linguistic curiosities.[5] Moreover, Spanheim had been correct all along: since 1689 (i.e., before Leibniz and Spanheim had begun to correspond) Brandenburg had had no resident or envoy in Muscovy. But Chuno was enterprising. He found Brandenburg's former envoy from 1688–89, presently stationed at Königsberg. His name was Johann Reyer.

On his own initiative, Chuno forwarded Leibniz's postscript to Reyer, putting it into his own words and in so doing giving Leibniz's project a kind of official sanction. Those words Chuno also forwarded to Michael-Antoine Hacki, abbot of the Cistercian cloister of Oliva, just outside Danzig. "He could by means of the Court of Poland, where he has some credit, have some good information," Chuno offered. Chuno sent copies of these letters back to Leibniz. These introductions made, Chuno suggested that this was the right time for Leibniz to send the "Desiderata." In the meantime, Chuno suggested, Leibniz might try to corroborate his speculations regarding language with what Avril had recently reported.[6] On the Muscovite side, Chuno confirmed that Reyer did maintain a contact at Moscow, a certain Andreas Vinnius, P.M. Chuno supposed that "P.M." must stand for "prime minister."

What a tremendous asset Leibniz had found! Reyer had commerce with the prime minister of the Muscovite Empire! Leibniz had read recently that one of the two young czars was "of the inclination to debarbarize his country." Surely Vinnius, as prime minister, would be deeply involved in implementing such policy, and what better way to debarbarize than to know the languages and locations of the barbarians. Such knowledge was precisely what Leibniz was looking for. Moreover, Hacki, the abbot of Oliva in Poland, represented the possibility of renewing the royal mandate to collect specimens of Tartaric languages. Kochanski was aging, Leibniz wrote, and possibly becoming feeble, and in any case he was distant from the royal court. Vota remained aloof, as usual. Leibniz was delighted to hear of Hacki's willingness to take up his cause. Leibniz ordered his secretary to make two copies of his "Desiderata" memoire, and these he enclosed with an exuberant letter of gratitude to Chuno.[7]

But within weeks Leibniz's enthusiasm was dampened. Vinnius, it turned out, was not prime minister but only the postmaster.[8] Chuno urged Leibniz

to temper his expectations of substantial knowledge from Muscovy, as Reyer had expressed to him, "I must warn that at present the Muscovite Nation is very much indisposed toward investigating such curiosities, for what does not smell to them directly of money and evident utility cannot bring them to lift a finger. I know this from experience, as I had the opportunity to explore their genius for eighteen weeks."[9] As for Chuno's recommendation that Leibniz read Avril's *Voyage*, Leibniz mentioned to Chuno his correspondence with Nicolas Witsen, the Amsterdam mayor, and their agreement that Avril's analysis was light and offered little instruction.

A regular scholar might regard these as setbacks. Not Leibniz. Undaunted, he suggested to Chuno that even if Vinnius were merely postmaster and not prime minister, nevertheless he directed the czars' diplomatic dispatches, and in such a position he "could easily furnish some knowledge concerning nations and languages." And "if it is true that [the Muscovites] intend to mount a better campaign against the Crimean Tartars, it would seem that news of that region would be more than mere curiosity."[10]

Contacting the Jesuits of Paris

Through the spring of 1695 Leibniz pressed Chuno and Reyer for any specific knowledge of Tartaric peoples and languages that they might wring out of Muscovy. Unfortunately, even the Muscovites seemed to have little knowledge of the indigenous languages spoken on the margins of their empire. Nevertheless, Vinnius had something that he thought the Brandenburgers might find amusing—a letter that had come under his jurisdiction, intercepted from a French Jesuit in the Far East.

More than twelve pages long, written by a French Jesuit *ex Tartaria orientali* somewhere near the Chinese wall and addressed to François d'Aix de La Chaise, the royal confessor of Louis XIV of France, and dated 22 August 1689, the letter had been intercepted in Moscow. Reyer himself did not actually have the letter, but its capture had caused such a sensation that he had heard of it. Chuno asked around and discovered that the Muscovite interpreter at Berlin had heard of the intercepted letter too. Chuno told Leibniz that he would press his contacts to obtain that letter, as well as anything else that might pertain to Leibniz's researches. Immediately upon receiving this report from Chuno, Leibniz wrote to Paris.

For a couple of years already Leibniz had been trying to contact the Jesuit Antoine Verjus at Paris. Verjus directed the logistics of the French Jesuit mission in China. It was he who decided which volunteers would travel overseas

and by what routes they would travel. He had thorough knowledge of the whereabouts of each of his missionaries, and he received full reports from each of them regarding both their proselytizing activities and their scientific observations. It was Verjus who had procured the royal letter from Louis XIV recommending Grimaldi to the king of Persia. It was Verjus who had sent Avril to Armenia with instructions to meet up with Barnabé and to reconnoiter possible caravan routes through Persia, Uzbekistan, and Grand Tartary to China. When Avril and Bernabé were expelled from Muscovy the first time, at the beginning of 1688, it was Verjus and La Chaise who procured the "lettres patent mathematicians" and passports with which Avril and Beauvollier made their second attempt to enter Muscovy. It was Verjus, furthermore, who had directed Grimaldi to the gates of Muscovy, fully aware that it was unlikely that he would be granted overland passage through the domains of that empire.[11]

From the time of his grand tour through the beginning of his linguistic project for the second preliminary dissertation to *Origines Guelficae*, Leibniz's principal Jesuit contacts were Italians. But having long since lost contact with Grimaldi, and Giovanni Laureati too having departed for the Far East in 1692, Leibniz sought to expand his Jesuit network to France. Leibniz knew that Antoine Verjus coordinated the French missionary enterprise and that Verjus reported directly to the royal confessor of King Louis XIV, the Jesuit François de La Chaise. Leibniz had even met Antoine Verjus's older brother, Louis Verjus, comte de Crécy, a member of the *noblesse du robe* and of the French diplomatic corps. Crécy had resided some months in Hanover a decade earlier, but Leibniz had no means to gain Antoine Verjus's attention.

In the fall of 1693 Leibniz received a gift that he attributed to Antoine Verjus of a new edition of published mathematical and astronomical observations made by Jesuit missionaries in Siam and China.[12] Leibniz repeatedly dropped Verjus's name to his other correspondents in order to display his credentials at Paris and in the Far East.[13] But it is doubtful whether Verjus himself actually intended the volume as a gift in the way that Leibniz thought. Leibniz sent Verjus no thank-you note acknowledging receipt of the book, a basic form of politeness in the republic of letters. In 1694 Leibniz sent to Paris twenty-five copies of his newly published *Codex Juris Gentium Diplomaticus*, one of which he earmarked specifically for Verjus,[14] but there is no indication that he enclosed a note to the Jesuit. Once Leibniz did succeed in gaining the Jesuit's attention, Verjus responded apologetically for neglecting to acknowledge receipt of Leibniz's *Codex Diplomaticus*, and in recompense he sent

Leibniz a recent publication of the Jesuits of the Far East, Thomas Goüye's *Observations physiques et mathématiques* (1692), precisely the book he supposedly had gifted two years earlier. This exemplar Verjus clearly intend for Leibniz personally, as Verjus inscribed a dedication to him inside the cover.[15] If the volume Leibniz received in 1693 was indeed from Verjus, then by early 1695 Verjus had forgotten that he had sent it. In any case, the miscommunication indicates the distance that separated the Paris Jesuit from Leibniz, despite Leibniz's attempts to bridge it. Only in 1695 did Leibniz succeeded in attracting the attention of the Paris Jesuits; and it would be through the Paris Jesuits—specifically Verjus and Joachim Bouvet—that Leibniz entered into an effective correspondence with the missionaries of China.

Thus when he learned from Chuno that a letter from a French Jesuit addressed to the royal confessor, François de La Chaise, had been intercepted at Moscow, Leibniz immediately saw the implication for his linguistic project. Regardless of the letter's contents for his own purposes, as an artifact it represented the possibility of doing a favor for Antoine Verjus that might lead more specifically to the knowledge Leibniz sought. However, still lacking a direct liaison with Verjus, Leibniz sent the initial news of the intercepted letter not to Verjus directly but to the resident envoy for Braunschweig-Lüneburg in Paris, Christophe Brosseau.

> I have learned that a person whom I know has a copy of a letter of twelve sheets addressed to Rev. Fr. de La Chaise, but intercepted by the Muscovites. It is dated the 22 of August from a location in Oriental Tartary near the great wall. This is a bit old. Nevertheless if the equivalent has not been received by other means, I shall inform myself more particularly and try to obtain the same. Since it has the appearance that it has some things instructive and useful. Perhaps the Rev. Fr. Verjus will not be angry to learn this particularity.[16]

Brosseau responded promptly with the news that Verjus was then at Versailles, but as soon as he returned to Paris, Brosseau would pass on Leibniz's notice.[17] Two days later Leibniz was in direct contact with Antoine Verjus.[18]

Antoine Verjus knew exactly which letter was held up at Muscovy and that its author was Jean-François Gerbillon. Verjus explained to Leibniz that Gerbillon and his Portuguese colleague Tomé Pereira had been instrumental in mediating the negotiations between China and Muscovy. "The Ambassadors of Muscovy showed him extreme gratitude," Verjus explained, "and the least of their promises was to arrange the swift and secure passage of their letters to us by way of Grand Tartary, Siberia, Muscovy, and Poland." And Verjus

understood that the court of the czars had promised not only the passage of the Jesuit missionaries' letters but the passage of the missionaries themselves. "No less positively did they promise to give complete liberty to our missionaries for passage to China by way of their States."[19] It was this promise that had induced Verjus to send Avril and Grimaldi to Muscovy. "But the bad faith of that Nation has nothing but denial for our consideration," Verjus complained, and now "it is from you whom I learn, Sir, that they have pursued this infidelity even farther, in opening these same letters and giving Copies that they have rendered public, violating in every manner the law of natural secret and of gratitude." Verjus asked Leibniz to send him a copy of Gerbillon's letter and, if possible, even to get the original.[20]

Although there had been no direct communication between Leibniz and Verjus before this exchange in March 1695, Verjus was well acquainted with Leibniz's linguistic ambitions and also with his curiosity about the whereabouts of Grimaldi and about scientific observations made by Jesuit missionaries in Asia. This is why the book Verjus sent to Leibniz as compensation for procuring Gerbillon's letter was Thomas Goüye's volume of physical and mathematical observations from India and China.[21] Verjus promised Leibniz that in China, Father Louis Le Comte was working on a translation of the Chinese herbary, including sketches of from four hundred to five hundred plants unique to China. Gerbillon was working on a grammar of the languages of Grand Tartary, but he had not sent it yet. Exactly which languages were under consideration was no more clear to Verjus than to anyone else in Europe: "I think I have something on the language of the Tartars established in China [the Manchus], which is the land of the Lamas [Tibet], and moreover as near as I can tell, the more common of all the Tartars who extend all the way to China as well as to the border of the Kingdom of Korea; something in that language, in Chinese [i.e., Manchu?] and Latin, which I will send you if I can find it in the chaos of my papers."[22]

Verjus also offered Leibniz some definitive news about the whereabouts of Grimaldi and other French Jesuits bound for China. Verjus himself had not heard from Grimaldi in more than a year, but he confirmed some of what Leibniz already knew: that Grimaldi had crossed the Mediterranean to Constantinople, then sailed the length of the southern coast of the Black Sea to Armenia. From there he had proceeded overland through Persia to Hormuz and then to Goa. Although he had survived the journey intact and had been well received at the Persian court on account of the recommendation letters from the kings of Poland and France, Grimaldi's progress had been so slow

that he had missed the 1693 monsoon. When Verjus had last heard from him, in January 1694, Grimaldi had complained of being stuck in Goa for at least another six months, until the summer monsoons brought the wind and rain that annually blew the Portuguese ships around India, through Malacca, and to Macao. When Verjus wrote to Leibniz in the spring of 1695, he supposed that Grimaldi must have finally reached China. Verjus said that the Italian Francesco Maria Spinola had traveled with Grimaldi from Goa to Macao. Spinola had sailed from Lisbon with Philippe Couplet, the procurator who had sparked France's entry into the China mission. Sadly, Couplet had perished at sea, as had two other of Verjus's French Jesuits during "this long and tedious voyage [*cette longue et ennuyeuse navigation*]."[23] Verjus had not yet learned that Spinola also had not made it to Macao, having perished at sea in 1694.[24] Simultaneously, a separate party was under way, led by Father Guy Tachard. Tachard's troop of scholar-missionaries had successfully reached Port Louis, Mauritius, in the Indian Ocean. Among them was Philippe Avril.[25]

Leibniz Writes Directly to Verjus

At this point we must back up a few days. During the month of April 1695 Leibniz was showered with texts and promises of texts from J. J. J. Chuno, who was receiving them from Reyer in Königsberg, who in turn was receiving them from Vinnius, the postmaster in Moscow.[26] That month Reyer traveled to Berlin, and Chuno had the opportunity to discuss Leibniz's interests with him directly. Chuno reported that Reyer had learned that the Ministry of Foreign Affairs in Moscow possessed yet another stolen Jesuit manuscript, in addition to Gerbillon's letters. This one was a grammar of the Oriental Tartaric language from the French Jesuits in China, obtained "par strategeme."[27] Again, immediately upon receiving this news from Chuno, Leibniz began to compose a letter directly to Verjus. Verjus's long letter of March 30 had not yet reached Leibniz at Wolfenbüttel, and Leibniz did not even know that it was coming. But with news of three intercepted documents—Gerbillon's two letters and the Tartaric grammar—Leibniz figured he had sufficient capital to bypass Brosseau, the Hanoverian resident, and write directly to the Jesuit himself.[28]

It might be asked why, after so many failed attempts to receive specific ethnolinguistic knowledge from world-traveling Jesuits, Leibniz so eagerly shared with Verjus the privileged knowledge he was receiving from Muscovy. Why not revel in the fact that from Vinnius via Reyer and Chuno he

might actually obtain something he could use? From a political perspective, the default position would seem to place Leibniz in an anti-Jesuit, anti-French, anti-Catholic camp of Protestant northern Germans, particularly given the alliance of their direct patrons, who were heads of state eight years into a war against the aggression of Catholic France. But this episode offers us a window into how Leibniz built and managed his impressive network of scholarly and diplomatic correspondents.

For one thing, as director of the China mission project on behalf of the French king, who was at the moment supplying most of the Jesuits then under way, Antoine Verjus remained Leibniz's best hope for a sustained commerce of letters with those Jesuits as they crossed Asia. And of course Leibniz's interest in China was much deeper than his immediate objective of writing the second preliminary dissertation to *Origines Guelficae*.

For another, Leibniz had a particular knack for balancing on the fulcrum between competing correspondent networks. The Jesuits despised the Muscovites almost as much as the Muscovites despised the Jesuits. Yet Leibniz was in indirect contact with both parties, and he was trying to deepen his connections on both sides. When writing to Jesuits, he quoted scripture, praised their work for the glory of God, and reminded them that besides saving souls, probably the second most important aspect of their calling was to increase human knowledge about God's creation. When writing to Brandenburgers in touch with Muscovites, he took their side, as in the episode of the condemned Brabanter whom Reyer had prosecuted. ("But I think [Avril] makes a matter of justice into a point of religion," Leibniz wrote to Chuno.) When writing to Nicolaas Witsen, director of the Dutch East Indies Company and mayor of Amsterdam, Leibniz accepted his judgment that Avril's observations about the tribes around the Caspian Sea were unreliable and lacked judgment, even though Avril acquired a far better grasp of those languages than Witsen ever did. When Verjus recommended that Leibniz read Avril, Leibniz remained politely silent. When Chuno recommended that Leibniz read Avril, Leibniz shared with Chuno Witsen's judgment. "I always handle those gentlemen very delicately," Leibniz confided to Chuno, referring to the Jesuits, "since they often inform me of curiosities."[29]

In *Novissima Sinica* he published the barest summary of Gerbillon's intercepted letters, and he left unsaid how they had been intercepted at Moscow. He did credit Chuno and Reyer for procuring the letters, but he was careful to redact anything whose publication might offend the Jesuits. Even so, Johannes Clerff, a Jesuit at Münster who supplied Leibniz with his longest

Novissima Sinica text, regretted that he was credited by name and requested that his name be removed from any future edition of the publication, which Leibniz dutifully did.[30] Elsewhere Leibniz confided to Chuno, having read Gerbillon's intercepted letters, "It is interesting to learn the intrigues that [the Jesuits] have between themselves. One discovers more and more that their unity is not so great as is imagined."[31] It was this ability to manage the competing interests of these several networks that enabled Leibniz to build such a vast empire of correspondents.

For three years Leibniz had been trying to get specific linguistic knowledge from the Jesuits of Asia, and it had been six years since Grimaldi promised to send observations in the course of his travels and especially from China in order to balance the exchange of knowledge between East and West. But Leibniz had received little. He expressed his frustration to Verjus. Given Verjus's position at Paris as the director of the French China-missions project, Leibniz knew that he, even more than Grimaldi, was in a position to supply him with the knowledge of Asia that he desired. He reminded Verjus of the intercepted documents he was trying to obtain for Verjus, and he expressed "hope that the public will see everything." That is, Leibniz understood his efforts on Verjus's behalf as a transaction: first he suggested that Verjus might act for him in Grimaldi's stead; in response, Leibniz would procure the documents from Muscovy; finally, Leibniz hoped that not only he himself but the public generally might profit.[32]

All of this Leibniz wrote upon Chuno's announcement of the stolen Tartaric grammar. Verjus's letter of March 30 had not yet reached Wolfenbüttel. Leibniz closed his letter and was on the verge of sealing it when Verjus's letter arrived. Verjus's news did not alter Leibniz's admonitions. In a postscript he repeated essentially the same claims: his efforts to obtain the several documents from Muscovy; his acquaintance with Grimaldi (now with an added detail); and the incumbency upon the Jesuits to share with the public what they knew. This latter claim he reinforced by reminding Verjus of the privileged position the Jesuits held as the recipients of royal patronage in the Academy of Sciences. "Since your fathers are of the Royal Academy of Sciences and a great King protects them in their long voyages," Leibniz admonished, "I hope that the public will profit more from their discoveries." In this postscript Leibniz went even further than he had in the body of his original letter, suggesting that the Jesuits already had a mechanism for such publication. A century earlier, the Jesuits at Rome had published a series of "annual letters

from Japan [*Lettere annue del Giapone*]." The closing of Japan in 1640 had forced the end of that series. From Rome he had since learned that the Jesuit superior general had determined that there was no longer a need for such a series, but Leibniz hoped that the French branch of the Society might think differently. "The observations of the French Fathers could serve as a supplement," he proposed. Perhaps it was the case that already there was a comprehensive edition of notices from the Far East, but even the good work of the Royal Academy of Sciences, which was printed, was not distributed through booksellers in Germany. "It is only by chance that I have seen recently the third volume of Father J. d'Orleans, and this seemed a considerable book to me," he complained.[33]

Here, both in the postscript and in the main letter of 15/25 April 1695, we can see Leibniz thinking. Facing the prospect that he might actually receive something from Chuno, moreover something from the Jesuits of China, Leibniz glimpsed a publication. If the Jesuits would not publish, then Leibniz would publish himself. Here was the germ of an idea that would become *Novissima Sinica*.

What Leibniz Learned from Gerbillon's Letters

In April 1695 Leibniz admonished Verjus that the Jesuits must publish what they knew of the Far East instead of hoarding it for themselves.[34] In September 1695 Leibniz learned that Gerbillon felt himself under a mandate from Verjus and the French Royal Academy to publish what he discovered. Gerbillon wrote to François d'Aix de La Chaise, "All five of us are working with all our might to put ourselves in a position to be able to give to His Majesty and to the members of the Royal Academy of Sciences all the satisfaction that they could desire from us for the perfection of Geography and the arts and sciences."[35] Antoine Thomas, a Flemish Jesuit who had been in the Far East since the 1680s, recently had sent to France coordinates for a map of China and Grand Tartary. Gerbillon warned Verjus not to publish it, as it was riddled with errors. His coordinates drawn from reports of Chinese and Muscovite travelers, Thomas himself having never traveled beyond Beijing, rivers were in the wrong place, and even his location of the Great Wall was completely wrong. "As for us," wrote Gerbillon, "since we don't want to fall into the error for which we reproach others, all five of us have resolved to send nothing of which we are not well assured and not to rush ourselves."[36] To La Chaise he promised a report of his own travels through the mountains, deserts, and forests of Grand Tartary in 1688 and 1689 based on his own latitude

and longitude observations and augmented by reports of others at the Qing court who had traveled there. Most of the regions, he commented, were inhabited. He promised that upon his return to Beijing he would put in order all the knowledge he had assembled for the benefit of the Royal Academy of Science and that he would send the report to Paris by the end of 1689.[37]

Gerbillon's close proximity to the ambassadors taught him more about the Tartar court than years at Beijing would have done. The Tartars were pleased that Gerbillon had begun to speak some of their language. (Upon returning to Beijing that autumn, Gerbillon and his French colleague Joachim Bouvet would be tapped by the emperor to become experts in the emperor's native Tartar [i.e., Manchu] language. They would be assigned a private tutor and immersed in the language by serving on a court tribunal whose language of transaction was Tartar. Within a few years they would translate Euclid's *Geometry* into Tartar for the emperor.) Although Gerbillon's Chinese was not yet very good in 1689, his Latin was better than Tomé Pereira's. So during the negotiations Gerbillon translated from Chinese and Tartar into Latin. The Muscovites' Latinist was a Pole named Andrei Belobotski, who translated from Latin to Old Church Slavonic and back. Pereira translated from Belobotski's Latin into Chinese.[38]

Gerbillon wrote that following the death of Ferdinand Verbiest in early 1687, Pereira had the best Chinese of any Jesuit at Beijing. Antoine Thomas had never mastered the language. But with Verbiest gone and Grimaldi still under way to Europe, Pereira and Thomas were named acting directors of the Tribunal of Mathematicians, which was responsible for writing the annual Chinese calendar. This was unfortunate, because although Pereira could speak the Chinese language, he had not mastered the Chinese sciences and he did not know many characters. While in Tartary, Gerbillon had watched Pereira debate Christian theology with Sosun laoyé, who was co-chief of the Qing Chinese ambassadorial delegation and also the Jesuits' strongest supporter at the Qing court in Beijing. But it was only "feebly" that Pereira could hold his own, because theology was not front and center in his mind. Yet he was head of the Jesuit mission in China. Pereira (or was Gerbillon referring to Antoine Thomas?) did not have even a smattering of mathematics, yet he was charged with calculating the calendar. And Pereira was the smartest one of the bunch. Most of the Portuguese Jesuits came to the Indies as young men right out of their novitiate, having studied only a few years—philosophy at Conimbre plus another year or two of theology at Conimbre or Goa—and then were ordained as priests of the Society of Jesus.[39]

News of his work as an interpreter at the imperial border negotiations was not Gerbillon's purpose in writing. When Gerbillon heard at the opening of the negotiations that the Muscovite delegation might afford the opportunity to send a letter to Paris by a route other than Macao and the Portuguese, Gerbillon used his few leisure hours during a very busy two weeks to write a full account of hostility internal to the Jesuit mission in China. Jesuit against Jesuit. Portuguese versus French. "I am ashamed to have to put in writing things so contrary to the honor of our company," wrote Gerbillon, complaining to La Chaise of "nationalism" (*un esprit de nationalité*).[40] The problem was not so much Pereira, even if he was not adequately equipped for the tasks he faced; indeed, by the time he wrote, Gerbillon had worked closely with Pereira for more than a year. Rather the problem was Pereira's compatriots at Macao, who were trying to defend the prerogatives of their religious patronage (*padroado*).

Leibniz knew that a century earlier, when the Portuguese had owned a de facto monopoly on shipping routes across the Indian Ocean, through Malacca to the Indies, and along the Pacific coast of Asia and to Japan, the papacy, in recognition of the Portuguese ability to transport personnel and supplies, as well as their commitment to the Counter-Reformation, had granted the privilege of *padroado* to the Portuguese crown. The *padroado* was a lucrative entitlement that also guaranteed Portugal's primacy in maritime commerce. But over the course of the seventeenth century, political realities had changed, and Portugal had seen its position slip away. First, the Japanese had expelled all foreigners from their shores. Then the Dutch, having won independence from Habsburg Spain, had devoted three generations to building a Protestant maritime empire in the Indies in direct competition with the Iberians. Recently, the Dutch East Indies Company had even sent an embassy to Beijing seeking status as imperial tributaries, which would grant the company access to Chinese markets.

But in the 1680s, as Gerbillon's letters revealed, the Portuguese saw themselves challenged not only by Protestants but also by Catholics in the form of a team of five French Jesuits. Granted, the French had played by the rules in that they had conveyed Gerbillon and his colleagues to Macao, the Portuguese island through which all commerce with China passed. A foreign ship in their harbor, the Portuguese governor general at Macao and the city council resolved to arrest the French Jesuits, together with the captain of the ship that had brought them, and return them to Europe by way of Goa, as well as to confiscate the ship and all its merchandise. The Portuguese at Macao wrote a

letter to a Chinese tribunal whose charge was to maintain the ancient customs of the empire and who consequently opposed the entry of all foreigners into China. To this tribunal the Portuguese warned that "five French clergymen had come to China, sent by a powerful king of Europe, who, having rendered himself master of many territories that did not belong to him in Europe, had also formed a plan to come establish himself in the Orient."[41] The five French Jesuits had come under the pretext of being mathematicians, when in fact they were there to reconnoiter the military forces and the political state of the empire. In this way the secular authorities at Macao attempted to block the entry of the French into China. The clergy at Macao opened a second line of attack, writing to the Jesuit superior general at Rome that the French Jesuits had come to usurp the China mission from the Portuguese.

Ferdinand Verbiest managed to head off these challenges, and the emperor summoned the French team to Beijing. But even once inside China the visitor of the Jesuit province of Japan (defunct since the closing of Japan in the 1630s) and its vice-province of China, who was also Portuguese, continued to oppose the French newcomers every step of the way. At the time, the five French Jesuits had little knowledge of the machinations arrayed against them, but later, at Beijing, Antoine Thomas told the whole story to Father Jean de Fontaney. Thomas went so far as to speculate that the national divisions with the Society had cost Verbiest his life. Verbiest was ill when news of the provincial visitor's opposition reached him, but the crisis compelled him to act. He succumbed to the illness five or six days later.[42] "Voila my Reverend Father," wrote Gerbillon, "the pitiable state to which this mission is reduced in China in a time when it should be flourishing."[43]

This litany of complaint against "violence" (Gerbillon's term) within the China mission in general and the Society of Jesus in particular clearly could not be sent in writing through the normal channels via Macao and Goa, where the packet of letters might be opened by Portuguese agents. But the embassy of the Muscovite ambassador, Golovin, to Nerchinsk afforded an alternative route. By the time the negotiations were finished, having avoided an impasse that very nearly erupted into bloodshed, Gerbillon perceived the high esteem in which his Qing Tartar and Chinese superiors held their Jesuit interpreters. Although the treaty was more favorable to the Qing position, Golovin also expressed his gratitude to Gerbillon and Pereira and presented them with expensive gifts of fur. So Gerbillon had no reason to doubt Golovin's promise to deliver the letters and pass them on to the Jesuit house in Moscow for forwarding to Poland and France. Neither Gerbillon nor Golovin could have

known that within a month that Jesuit house would be closed and its two priests expelled from Muscovy.

What Leibniz Actually Included in *Novissima Sinica*

Leibniz mentioned none of this intra-European intrigue in his *Novissima Sinica* in 1697. To do so would have been impolite, a violation of trust, and it would have ruined the interconfessional networks he had cultivated with such energy. Instead of publishing Gerbillon's purloined letters in full, he extracted only a description of the circumstances leading to the border conflict, the vast geography of Oriental Tartary, and the personnel present at the negotiations. Leibniz was careful not to favor one side over another, whether Muscovite, Chinese, or Jesuit, aware as he was that his little publication was likely to reach the eyes of all three. This description he paraphrased as an appendix of about five octavo-sized pages.[44] He drew the extract almost exclusively from three paragraphs in Gerbillon's letter to La Chaise.

The site of negotiation was remote in the extreme. Nipchou (Nerchinsk), some three hundred leagues due north of Beijing, a journey of forty-nine days so arduous that Gerbillon quipped that the eighteen-month voyage from France to China had been a joy by comparison. Selengha (Selinginsk), the initial destination of 1688, was four hundred leagues northwest of Beijing, but the Chinese had been unable to reach it on their first attempt. Gerbillon had traveled overland, but the bulk of the military force had come by sea, traveling up the massive Black River (Saghalien Oula, in Tartaric, as Leibniz learned from Gerbillon; we know it as the Amur). Its mouth, on the Eastern Ocean at about latitude 46° N (across from Japan or a bit further north) and navigable for some seven hundred leagues upstream to Nipchou. These were enormous distances. Leibniz did not have to tell his readers that the distance from Paris to Moscow was less than seven hundred leagues.

Despite much diplomatic to and fro for about a month, peace was concluded and adjured in the Orthodox chapel inside Nipchou on September 3, 1689. In the two or three days before his departure, said Leibniz, Gerbillon had written these words to friends in France. But that was a polite misrepresentation. Gerbillon had made clear in the letter to Antoine Verjus that he had been working on his letter since the beginning of the negotiations, that the occasion was not news of the treaty but the conflict within the Jesuit mission, and that he had promises from the Muscovite delegation to carry the letter to Moscow for forwarding to Warsaw and Paris. The Berlin Academy's critical edition shows several attempts by Leibniz to account for how

he obtained these letters. In the final printed version he simply stated vaguely that they had come thanks to the Prussian counselor, "Mr. Reyer," and the Brandenburg state secretary, "Mr. Chuno."[45]

Verbiest's *Elementa linguae Tartaricae*

In April 1695 Leibniz learned that in addition to Gerbillon's intercepted letters, Reyer had a second illicit document from the Jesuits of China, a grammar of a Tartaric language. That month Johann Reyer had traveled from Königsberg, in the eastern Baltic territory of Prussia, to Berlin, in Brandenburg, where he stayed for at least a month and possibly the entire spring season. He met personally with Chuno on at least two occasions, and in face to face conversation they discussed Leibniz's linguistic project as well as the Jesuit mission in China and Jesuit attempts to travel overland through the Muscovite Empire and Grand Tartary. It was at this meeting that Reyer clarified to Chuno that Andrei Vinnius, in Moscow, was postmaster, not prime minister. The manuscript copy of the Tartaric grammar was at his home in Königsberg, but he offered to send it to Chuno when he returned. Chuno wrote to Leibniz with news of the Tartaric grammar, certain that this would temporarily satisfy Leibniz's curiosity while they awaited further knowledge from Poland and Muscovy.[46]

The document in question was Ferdinand Verbiest's *Elementa linguae Tartaricae* (Elements of the Tartaric language). For two hundred years, from the 1720s to the 1920s, the work was falsely attributed to Jean-François Gerbillon, who was the author of the letters intercepted at Moscow and who in the 1690s did become the Chinese emperor's Jesuit expert in the Manchu language.[47] The false attribution was owing in part to a remark in the preface that the author's expertise in Latin and Manchu had enabled him to function as an interpreter between the emperor and an ambassador of Muscovy, a role that Gerbillon did perform at the signing of the Treaty of Nerchinsk. But the preface indicates that that mediation occurred not at Nerchinsk but at Beijing, and thus the ambassador must have been Spathari (in 1676), not Golovin (in 1689). Indeed, Gerbillon must have known the work well, as it would have been his principal resource for the structure of the Manchu language.

Elementa linguae Tartaricae was a grammar of Manchu, the native language of the Qing dynasty, which had invaded from north of the Great Wall in the first half of the seventeenth century and overthrown the Ming dynasty. Having conquered China, the Manchu Qing had to learn the language of their conquered subjects, but much of the business transacted at the highest levels

of government was still conducted in their native Manchu. Europeans referred to them as "Oriental Tartars" or "Chinese Tartars," Tartars being the name for any of the myriad nomadic peoples that inhabited the Eurasian steppe from Ukraine to the Pacific Ocean. Verbiest's title posed no problem, as his audience of European Jesuits in China would have understood the only relevant set of "Tartars" to be the Manchu Qing, with whom they worked. That is, Verbiest wrote the work for his colleagues, not for a broader audience of European scholars.

Verbiest offered a side-by-side comparison of the Latin and Manchu languages. All his Jesuit colleagues had, of course, mastered written and spoken Latin early in their schooling. The key to linguistic success, wrote Verbiest, was to understand that all languages, regardless of their means of expression, interpret the same sense of reason (*ratio*). "For just as reason governs the minds of all nations like a kind of unique and universal Queen, so mutual commerce prescribes rules and laws that are the same for all nations."[48] If nations differed in their interior manner of conceiving things and concepts as much as they did in their exterior manner of speech and pronunciation, it would be very difficult to learn a foreign language. Fortunately this was not so. All nations had nouns and pronouns, substantives and adjectives connected to one another in some way, as well as verbs both active and passive, which could be modified by adverbs and inflected to express time, place, and other circumstances. Latin was especially suited as a model for grammar because it abounded in rules and precepts that could explain everything concerning mutual commerce between people. So in order to sketch out some of the rules of Tartaric grammar on the model of Latin, Verbiest organized his little *tractatus* into five main chapters that addressed pronunciation and the Manchu alphabet, nouns, pronouns, verbs, and syntax.

How Reyer came to possess a manuscript copy of Verbiest's Tartaric grammar is a mystery. Maybe George David and Tobias Tichanowski, the two Jesuits resident at Moscow during the 1680s, when Reyer was there, had a copy. Or maybe Philippe Avril had brought a copy from Paris and lent it to someone who in turn had passed it to Reyer (given their mutually antagonistic positions, it is unlikely that Avril and Reyer had any favorable direct commerce). A year and a half later, at the beginning of 1697, Leibniz would learn that Philippe Couplet had brought a manuscript copy of Verbiest's Tartaric grammar to Europe. It had been printed in 1687, but it was not yet widely circulated, since Melchisédech Thévenot intended to include it in a fifth volume of his *Relations de divers voyages curieux*. Thévenot died in 1692,

before that volume could be printed, but in 1696 his printer reissued the entire four-volume series (this time in two folio-sized volumes), and *Elementa linguae Tartaricae* was published there.[49] Our story stands, however, in the spring and summer of 1695; we have not yet reached 1696.

Chuno was certain that the promise of a Tartaric grammar would satisfy Leibniz's curiosity about Asiatic languages at least for the time being. Leibniz, however, was nonplussed. Having thought about the promised grammar for a few months before responding—he first heard of Verbiest's grammar in April 1695, and in May Chuno promised to pass it on to him after Reyer returned to Königsberg, where he had left it—Leibniz wondered, which "Tartaric" language Chuno was talking about. The best way to illuminate the relationships between the different Tartaric languages would be for Vinnius, the postmaster, to instruct those who traveled through those lands to collect language samples as Leibniz had proposed in his "Desiderata" memoire.[50] That is to say, what he really needed at this early stage in linguistic investigation was a superficial comparison of many languages, not an in-depth analysis of one.

From Königsberg that summer, Reyer did send his copy of Verbiest's *Elementa linguae Tartaricae* to Chuno. But sending it was not an easy matter. No curator of a modern archive would dare to entrust irreplaceable rare books and manuscripts to a postal system. Reyer evidently had confidence in the diplomatic postal system within Brandenburg and its eastern Baltic territory of Prussia, but for Chuno, to send the manuscript into another jurisdiction entailed greater risk of loss. Besides, the manuscript was not his to lose. Lacking a xerographic machine, reproducing a manuscript was a laborious process. Professional copyists were employed for that purpose. Leibniz had at his disposal such a secretary, who had to be knowledgeable in German, French, and Latin as well as have beautiful penmanship. Chuno, who was already Danckelman's secretary, had a secretary at his disposal, and this person he tasked with making a copy of Reyer's manuscript of the Tartaric grammar to send to Leibniz. But for some reason the secretary failed to copy the manuscript in a timely manner, so Chuno, exasperated, sent the first three leaves of Reyer's original to Leibniz. He left six more folio sheets with his secretary with instructions to copy them.

In September 1695 Leibniz acknowledged receipt of the first three leaves, and since Chuno had mentioned that the Brandenburg court would likely come through Hanover en route to Cleves in October, Leibniz suggested that Chuno simply bring the rest of the manuscript with him. From Reyer Chuno

evidently had also received more pages from Gerbillon's letters to Verjus and La Chaise. He thought Reyer had given him complete versions during his spring visit to Brandenburg, but now Chuno was confused as to what he had sent to Leibniz and whether the new pages were in fact new at all. Leibniz suggested that Chuno bring these also so they could sort them out in person at Hanover.[51]

But apparently Chuno did not bring the other six leaves of the Tartaric grammar, because in December 1695 Leibniz acknowledged that he still had the first three pages and would return them when he returned the whole manuscript, which Chuno had not yet sent. Three months later, at the beginning of March 1696, he nagged Chuno for the rest of the manuscript, saying that Chuno had sent him only the first part and promising that the whole would be returned faithfully.[52]

Two more months passed before Chuno finally came through. But when he did, Leibniz decided it had been worth the wait. "The weight of your letter compensates for the wait or delay," he wrote graciously to Chuno in June 1696. "I don't mean the material weight but the contents, which are considerable and curious."[53] Not only did Chuno enclose another installment of the Tartaric grammar but he also sent a letter from Reyer dated from Riga that explained the linguistic configuration of the eastern Baltic, as well as a catechism from North America that included a Lord's Prayer in the Mohawk language. Chuno also promised a volume of reports from the Persian Empire.

By September 1696 Leibniz had copied everything Chuno had sent him, and he returned the whole manuscript to Berlin. Leibniz had hoped to meet Chuno at Hanover, as the Brandenburg court, including Prime Minister Eberhard Danckelman and his secretary, Chuno, had traveled again to Cleves to meet with King William III of England (i.e., William of Orange in the Netherlands) to discuss strategy for ending the Nine Years' War. On the return journey, the Brandenburg court had made a station stop in Hanover, but since they stopped only briefly before pressing on toward Berlin, Leibniz missed them. He dashed off a letter to Chuno the next day and with it enclosed the manuscript of the Tartaric grammar.[54]

By the beginning of 1697 Leibniz had a better understanding of what he possessed in this Tartaric grammar. In early February he mentioned to Sparwenfeld that he had obtained a fragment of a Tartaric grammar.[55] A month later Leibniz announced to Chuno that he had learned that a Tartaric grammar had been printed recently in a posthumous collection of the late Mr. Thévenot. Moreover, Leibniz had learned that the author of the grammar was Ferdi-

nand Verbiest himself, whom Leibniz identified to Chuno as the successor to Adam Schall von Bell and the predecessor of Grimaldi, who from Goa had promised Leibniz news from China. It is not clear from whom Leibniz received knowledge of Verbiest's authorship and of its printing at Paris, although I would speculate that it was someone within the Jesuit order: by March 1697 Leibniz was on the verge of publishing *Novissima Sinica*, and he was receiving the final pieces from a Jesuit at Münster named Johannes Clerff.

The printing of *Elementa linguae Tartaricae* would seem to render moot all of Chuno's efforts to obtain the manuscript from Reyer, not to mention the work of copyists, who must have spent days transcribing with pen and ink. But just because it was printed didn't mean that Leibniz possessed a copy of the edition. Moreover, without having seen the printed collection, he could not be certain that his version was identical. And even if it was, he told Chuno, he remained deeply indebted to Chuno for what he had sent in manuscript form.[56] In March 1697 Sparwenfeld told Leibniz that "this must be the one that Father Couplet gave to Thévenot, who had it printed." Sparwenfeld, who had seen the work at Paris and discussed it with Couplet at Madrid, did not think the grammar would be of much use to Leibniz's linguistic project.[57]

In May 1697 Chuno suggested that Thévenot's printed version of Verbiest's grammar would certainly be more accurate than his own manuscript version, particularly since the manuscript had been copied in haste. Nevertheless, at the end of November 1697 Chuno obtained from Reyer four more folio leaves of Verbiest's Tartaric grammar.[58] These pages Chuno passed on to Leibniz in December 1697, mentioned briefly in the last sentence of a desparate final letter before Chuno signed off and disappeared underground. Ezechiel Spanheim served as the Berlin courier who delivered Chuno's letter and Reyer's manuscript pages, along with the news that the Brandenburg elector Frederick III had fired his prime minister. Eberhard Danckelman fell from grace, and his secretary, Chuno, was very nearly drawn into the vortex of Danckelman's precipitous descent.[59]

Chuno lay low for a year and a half, during which time Leibniz lost contact with him and must have kept possession of Reyer's manuscript pages. Eventually this final installment of the Tartaric grammar—Leibniz's copy would remain incomplete—was copied and filed with the first part of the treatise.[60] Leibniz did eventually return the original pages, or at least most of them; as late as 1702 Chuno thought Leibniz was still holding two pages of the manuscript.[61]

Taking Stock of What He Knew

Let us back up in our chronology one more time. In the summer of 1695 Leibniz paused to take stock of what he had learned about the geography of Siberia and central Asia, the peoples of Grand Tartary, and the languages they spoke. It had been four years since Leibniz began to build the several networks of literary correspondents from whom he sought ethnic and linguistic knowledge of the Asiatic North. Although largely frustrated through the year 1694, finally in the winter of 1695 Leibniz had found a most helpful correspondent in Johann Jacob Julius Chuno of Berlin. Through the spring of 1695 and into the summer, Chuno had showered Leibniz with documents that Chuno hoped Leibniz might find interesting even if they were not exactly of the ethnolinguistic type he sought. Now, sometime in the summer of 1695, a small quantity of knowledge in his hands, Leibniz sat down to assess what it was that he knew and to square his sources from Moscow against what he had collected from Paris and Amsterdam.

On one side of his desk, or probably hanging on the wall, was Nicolas Witsen's 1687 map of northern and eastern Asia, depicting Siberia and Grand Tartary from Nova Zemlya and the Caspian Sea to China. On the other side he opened Adam Brandt's report of Isbrandt Ides's embassy from Moscow to China, describing the overland route through Siberia. Leibniz read Brandt's report against Witsen's map, marking in Brandt's margins discrepancies that he found; most of the discrepancies involved items lacking on Witsen's map. In between Brandt and Witsen, Leibniz placed a third folio sheet, on which he wrote notes to himself. That third sheet, now published as A.IV.6, #59, Aufzeichnung zu Brandts Relation, offers a window into what was known (and what was knowable) about Siberia and central Asia to a well-connected scholar in central Europe at the end of the seventeenth century.

Text 1. Brandt's Embassy Report (1695)

Leibniz's notes on Brandt's report are short, a brief narrative essay of three folio pages. Brandt's memoire itself was only five and a half pages.[62] Leibniz's narrative closely follows Brandt's structure, naming almost every place and tribe mentioned by Brandt. Leibniz copied out whole phrases verbatim and summarized other phrases. When he abridged, Leibniz omitted Brandt's comments that added color, such as comments about the specific religious practices of a tribe, descriptions of the Great Wall, and so on. That is, Leibniz was interested in the actual route used by the Muscovite embassy to cross Siberia,

plus the names and locations of peoples through whose lands the embassy passed. Leibniz did include in his notes bare mentions of whether nations were pagan or Muslim or followed the Dalai Lama (Tibetan Buddhist), as this kind of information was useful in defining boundaries between tribes and nations.

The closeness of these notes on Brandt's report to the second preliminary dissertation is betrayed by Leibniz's first comment to himself. Brandt had remarked that the language of Ziriania (spoken by the Siranni) shared many cognate words with the indigenous "Undeutsch" of Livonia, in the eastern Baltic. That coincidence suggested that the two geographically separated groups shared a common origin. As he read Brandt's report and the other texts he had gathered, Leibniz looked for little clues to national and linguistic relationships like this.

Text 2. Witsen's Nieuwe Lantkaarte *(1687)*

As he read Brandt's memoire, Leibniz wrote notes to himself in Brandt's margins. The editors of the Akademie Ausgabe indicate a dozen of these, eight of which note place or tribal names that Leibniz could not find on Witsen's map. In his narrative essay to himself, Leibniz summarized these marginal notes, first the omitted names, then associations between tribes that Leibniz speculated. For example, the name Buratski, or Bratzki, seemed to mean "brothers." Did this mean they were allies of the Muscovites? Were the Tungus on the Tunguska River related to the Tungusi Olenni in Dauria? *Mongol* meant "Tartar," as in Brandt's phrase "Mongoln, oder Tartarn";[63] Kalmyk nomads were often referred to as Tartars, but were they related to the Mongols? Leibniz wondered not only about people's language affinity but also about their physical or bodily shape and religion—anything that would enable him to sort the myriad peoples into legitimate sets that might enable him to deduce their origins. Were Mongols the same as Manchus? (Recall that the Jesuit Grimaldi had told him as much in Rome in the summer of 1689, although Leibniz did not mention that conversation here.)[64] Did it make sense to speak of Mongols as a single set when some distinguished between major groups, such as Bogdoi and Niuche? And the same with Kalmyks: some authors distinguished White Kalmyks from Blue Kalmyks, just as Mugals/Mungals/Mongols could be Yellow or Black. Again, Leibniz wondered whether they formed a coherent set in terms of language, physical form, and customs (*Sitten*).[65] And what about the Crimean Tartars: were they closer to Mongols or to Kalmyks? These were precisely the relationships Leibniz was seeking to understand, but Brandt, like


Irkutskoy.
Baykal lacus.
Chad. mare, siue
Selenginskoy
Nerchei
Argun
Amur
Lebedia
Albasin.
Ielestye
Karaul Kitaiskoy
Mugal.
Merin felenginskoy.
MUGALIA FLAVA
MAGNA.
Nertchinskoy
Solungal
Sieden buyten de sinesche muer.
MUGALIA NIGRA.
KATAI
Nikaulkoy
Peking
Gobee
sive
Kokotan
CHINA.
Kia
Karakitay.
TANGUTH
Sive
TANNU
TURCHESTAN.
Hiarchan.

the few other travelers whom Leibniz had encountered, offered very little specific information and displayed little interest in sorting out who was who.

Text 3. Baikov in Thévenot

After comparing Brandt's report with Witsen, and after interrogating Brandt's report regarding tribal ambiguities, Leibniz next compared Brandt's report with other travel reports in his possession. In 1653, forty years before Brandt's expedition, Ambassador Théodore Isakovitch Baikov had taken a route to China different from Brandt's.[66] Melchisédech Thévenot had published an eighteen page report in 1683.[67] Leibniz made a few notes to himself describing Baikov's route: up the Irtisch River to the Tobol, then overland to Kokotan and to China. Brandt, by contrast, had followed the Ob River. Looking at Witsen's map, Leibniz thought it would make more sense to follow the Irtisch, then portage over to the Iaal (according to the Akademie Ausgabe editors, the Yalu He in northeastern China) and the Singal River (also Schingal, according to Witsen; spelled both ways on map), which ran parallel to the Great Wall. But, he granted, staying north in Siberia would keep one in the domains of Muscovite allies, the Buratzki and the Tungus, which would probably be safer than crossing through the lands of the Kalmyks and the Mongols to the south.

Text 4. Gerbillon's Letter

To these Muscovite reports Leibniz added what he knew from Gerbillon's intercepted report. As with *Novissima Sinica*, which he would publish two

Nicolaas Witsen, *Nieuwe Lantkaarte van het Noorder en Ooster deel van Asia en Europa* (New Map of the North and East Part of Europe and Asia, 1687), detail, from the Bratski and Lake Baikal in the upper left to "Peking" and the Great Wall in the lower right. Selenginsk and the Selenga River, Gerbillon's destination in the attempted embassy expedition in 1688 (see chapter 4), are depicted just below Lake Baikal. The major northern river, just above the center of the detail and flowing from west to east, is the Amur. The Iaal River, mentioned by Leibniz in his summer 1695 reflection on Asiatic geography, is at approximately the center of the image, a tributary to the Schingal River, which is a tributary to the Amur. The major river at the bottom of the image, flowing near the Great Wall, is labeled "Croceus, sive Hoamko Fluvius" (Huangho, or Yellow River). In actual size the detail depicted here is about 55 × 42 cm. The whole map measures 122 × 130 cm. Many of the labels and geographical features have been removed for legibility in reproduction. (Gottfried Wilhelm Leibniz Bibliothek—Niedersächsische Landesbibliothek, Hanover, Ktr. 118.)

years hence, Leibniz was more interested in the brief account of the Siberian-Manchurian border situation than in the intra-Jesuit intrigue that occasioned Gerbillon's letters to La Chaise and Verjus. Gerbillon reported Nipchou as lying three hundred leagues due north of Beijing and on the same meridian. But which meridian was that? Since Ptolemy had established the global positioning system of latitude and longitude coordinates, Eurasian measurements were typically made from a fixed point in the Atlantic Ocean well west of the European and African coasts such that the entire Eastern Hemisphere might be depicted as uninterrupted on a graphical map. (The British Maritime Academy was not yet a major player in Asiatic exploration, so the notion of a prime meridian running through the London suburb of Greenwich did not yet exist.) Thus Philippe Avril indicated that his measurements were based on a meridian that ran through l'Île de Fer (El Hierro in the Canary Islands). While calculating latitude was a relatively straightforward exercise, there was still no reliable way to calculate longitude. In 1695, without a longitudinal coordinate, it was not even known precisely how far Beijing was from Moscow. The would-be missionary and trained astronomer Avril had pointed out that estimates of Beijing's longitudinal position ranged from 130° E to 150° E. But 150° E, Avril had written, would put Beijing in the ocean, about as far east as Japan. While he waited in Moscow for his visa application to be denied, Avril managed to procure a Muscovite map of Asia from the Foreign Ministry archive, and this he reproduced in his 1692 book. On that map Beijing is located at about 132° E.

Text 5. Antoine Thomas in Goüye

Leibniz remembered that he possessed another report from the Jesuits of China. He pulled off his shelf one of his editions of Thomas Goüye's *Observations physiques et mathématiques*.[68] Leibniz possessed two exemplars of Goüye, both sent by Antoine Verjus from Paris.[69] In Goüye's collection was a report by Antoine Thomas, generally understood to be a trained astronomer and mathematician (a point Gerbillon took pains to disabuse), who had calculated the position coordinates of the major cities of Mongolia, Seringa/Selinginsk, Kokotan, and Nipchou/Nerchinsk relative to Beijing. Again, the precise coordinates of Beijing relative to a fixed position off the coast of Africa (say, El Hierro) were not established. For argument's sake, Thomas assumed Beijing's position to be 40°0′0″ N, 138° E. Given that, Seringa/Selenginsk lay at 52°49′ N, 129°47′ E; further to the south and east, Kokotan lay at 43°51′ N, 135°2′ E; and Nipchou/Nerchinsk lay at 51°45′ N and, following



The southeast quadrant of Philippe Avril's *Nouvelle Carte de la Siberie et du Kitay*, in *Voyage* (1692). "Pekim" is depicted at 40° N and 132° E (as measured from El Hierro in the Canary Islands). Note the location of "Nerzinski" at 55° N, 112° E. Lake Baikal is in the upper left, with "Irkutsko" to the north and "Celeginsko" to the south. Note also Albasin (Manchu, *Yaksa*) at 46° N, 122° E: its location will become important during the Treaty of Nerchinsk, discussed in chapter 9.

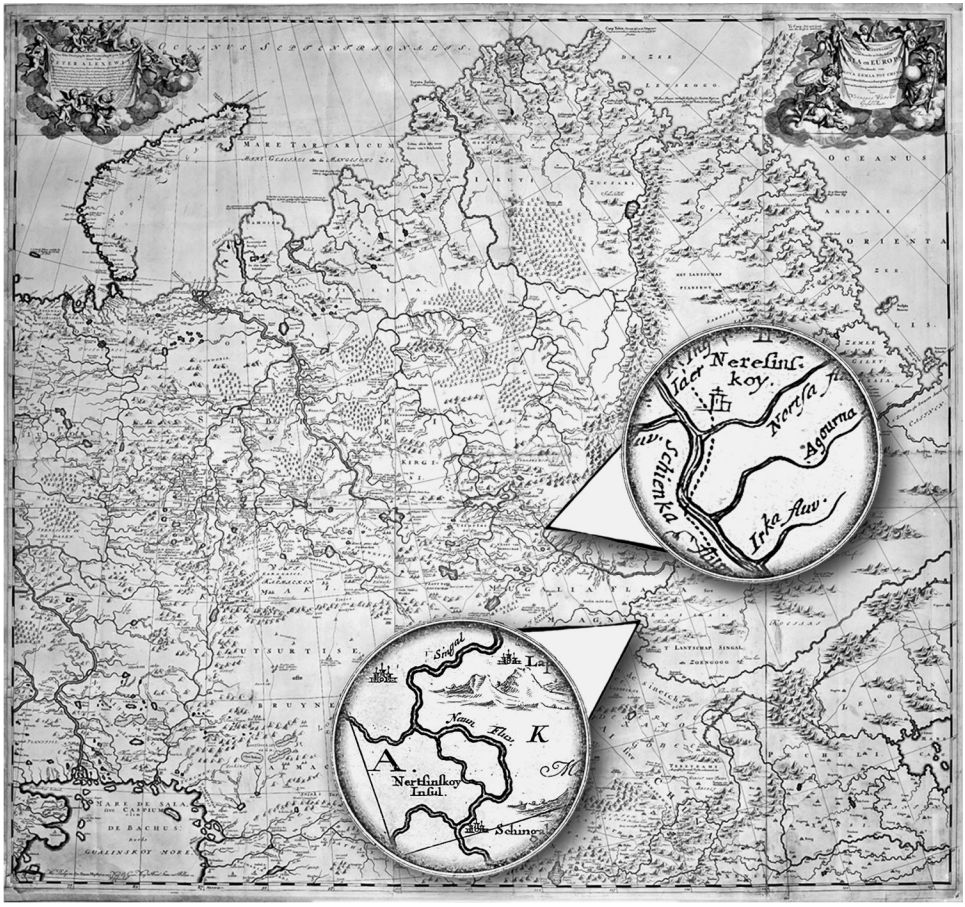
Gerbillon's calculation, which was the source of this latter measurement, either on or slightly east of 138° E. Leibniz was not particularly interested in the cartographic questions of geographical coordinates. Had he been, he might have noticed a discrepancy between the Gerbillon/Thomas understanding of the location of Nipchou and the location represented in Avril's map: Avril's map (based on an exemplar appropriated from Moscow) had Nerchinsk at

55° N, 114° E, which was both further north and vastly to the west of where the Chinese and the Jesuits understood it to be. That is, neither the Muscovites nor the Chinese knew exactly where they were. Little wonder, then, that they had come into conflict over the boundary between their respective domains.[70]

The real shocker is that Leibniz could find neither the Amur River nor Nerchinsk on Witsen's map. Yet both are clearly labeled, and Leibniz looked directly at them and commented on them. This is because Leibniz, working from the French Jesuit sources—Jean-François Gerbillon and Antoine Thomas—knew only the Chinese names for the location of the treaty negotiations. When Gerbillon described the Manchu delegation as shipping the bulk of their gear up an enormous river some seven hundred leagues inland from the Pacific Ocean, he did not use the Russian name, Amur. And when Antoine Thomas described the site of negotiation as Nipchou, he did not use the Russian name, Nerchinsk. The 1687 edition of Witsen's map does clearly depict Nerchinsk (in fact, it depicts it in two locations), and it is even correct in depicting the fort as standing on a river island. But that river island is not at the confluence of the Nercha and Shilka Rivers but rather on a river called the Schingal, which only meets the Amur far downstream.[71]

Text 6. Philippe Avril

Finally, Leibniz corroborated Antoine Thomas's report with Avril's description of the border situation. Witsen had complained to Leibniz that Avril's work was light in weight and riddled with errors. And in politeness Leibniz had conceded that point. But in "Aufzeichnung zu Brandts Relation" Leibniz gave no indication that he considered Avril unreliable.[72] Rather, Avril offered a great deal of useful information: that there was a certain river or boundary between Muscovy and China; how they traded across that boundary; which tribes were friendly; whether the Muscovites had explored the Arctic coast; whether Asia and America were connected; how the Muscovites distinguished between Tartaric/Scythian languages as well as those of other neighboring peoples; and how contemporary maps might be improved in order to shed more light on that vast region. These were all merely notes to himself. Leibniz made no reference to the second preliminary dissertation of *Origines Guelficae*, nor is there any indication that he intended to publish these notes. J. F. Feller submitted a brief extract to the *Neue Zeitung von Gelehrten Sachen* in 1722, and Dutens translated Feller's extract into Latin for his edition of Leibniz's works in 1768.[73]



Nicolaas Witsen, *Nieuwe Lantkaarte van het Noorder en Ooster deel van Asia en Europa* (New Map of the North and East Part of Europe and Asia, 1687), detail depicting Nerchinsk in two locations. Because Leibniz knew only the Chinese name for the site (Nipchou) through his French-language sources, he could not identify Nerchinsk through its Russian name. In the 1705 version of the map—the version annotated by Witsen's two-volume gazetteer—the southern "Nertsinskoy insul" was removed. But Leibniz was working in 1695, not 1705. (Gottfried Wilhelm Leibniz Bibliothek—Niedersächsische Landesbibliothek, Hanover, Ktr. 118. Magnifications by Matt Thyssen.)

A final speculation to conclude this discussion of Leibniz's notes to Adam Brandt's embassy report: I wonder whether Brandt's brief report was written specifically for Leibniz. The last three sentences suggest to my eye that this was partially the case. The penultimate sentence reads, "Of the Jesuit Grimaldi, the news in Peking was that he had reached Goa in India." To Chuno, Leibniz

had commented on his relationship with Grimaldi and on his interest in Asia-traveling Jesuits generally. This sentence in Brandt reads as though something about Grimaldi had been passed along the chain from Chuno to Reyer to Vinnius to Brandt. Grimaldi appears abruptly in Brandt's report, as if an afterthought, and there is no other reference to traveling Jesuits. And Brandt, who had just referred to the king over the Chinese as a Mangur or Oriental Tartar, suggested a relationship to the Occidental Tartars as distant as Crimea, who called the king of China Kamhi Ammologdo Chan. This latter suggestion was of great interest to Leibniz, reminding him of the association Grimaldi had made at Rome: that the Oriental Tartar word for "horse," *mara*, agreed with the Anglo-Germanic *mare*.[74] So did an association that Brandt did not draw explicitly: Brandt reported that the Oriental Tartars termed the Great Wall of China "Zachan Crim."[75] Leibniz wondered whether the same term was used by the Crimean Tartars and whether *crim* referred to a wall in dialects at both ends of that nation. By analogy, *khan* also referred to a great lord in all the Turkic and Persian languages.

Johan Gabriel Sparwenfeld and Gothic Origins

(November 1695–December 1697)

One of the most important results of the Berlin-Brandenburg Academy of Sciences publication of the Leibniz correspondence through the 1690s and into the eighteenth century is that we can see Leibniz's exchange with Johan Gabriel Sparwenfeld (1655–1727). Hans Aarsleff identified the significance of Sparwenfeld for Leibniz's linguistic efforts, but working in the 1960s Aarsleff had to comb through the original manuscripts archived in Hanover. To say nothing of the paleography, the material reality of the letters, which addressed topics in other letters, housed in different folders, made it very difficult to acquire an overview of the whole course of the Leibniz-Sparwenfeld exchange. Even with the correspondence published down to 1707, the length of the individual letters and the the variety of topics covered in each of the Sparwenfeld letters is daunting. The number of letters exchanged—only a few per year—is not excessive. This stands in contrast to the Chuno letters, which in 1695 went back and forth between Berlin and Hanover at a rapid rate. The pace of the Chuno correspondence meant that only a few topics were addressed in a single letter. Sparwenfeld did not write frequently to Leibniz, but when he did he wrote a very full letter. Each letter was a significant achievement in its own right, with topics of discussion ranging from Swedish antiquities and the history of the Goths to Tartaric languages of western and central Asia, the relationship between the Slavic and Germanic languages, and the unrelatedness of Basque. Sparwenfeld and Leibniz traded rumors about manuscripts that might or might not exist, travel reports, and maps of Siberia such as Witsen's. Leibniz received books from Sweden by the caseful and found himself unable to balance the exchange, leaving him deeply in Sparwenfeld's debt.

Moreover, the conversations extend over several exchanges of letters. Each author would sit down with a newly received letter and compose a point-by-point response to the queries and statements contained in it. Most of the querying came from Leibniz's side. Sparwenfeld's responses were terse,

possibly reluctant, except that he usually filled a complete folded sheet, front and back (four quarto-sized pages), and sometimes two sheets. Not satisfied with such terse responses, Leibniz would continue his line of questioning in the next letter. It took years for a complete conversation to unfold on any given topic, and each man kept eight, ten, or twelve such topics in his mind, mulling them over for months, until the next response arrived.

To the modern scholar trying to understand what the protagonists knew or wanted to know, this is a nightmare scenario. Worse, the conversations on such arcane topics were carried on in a mutual seventeenth-century French as a second language, peppered with grammatical errors and ambiguous vocabulary. In order to make sense of the exchange, I have broken the letters down into their component parts. The several brief remarks and short paragraphs I grouped together according to topic, and I have attempted to present each topic as a paragraph in its own right. At the expense of doing violence to the letters, I have reconstructed what each scholar knew and what each learned from the other about Germanic origins and the prehistoric migrations and relations between nations.

This long chapter, therefore, is divided into three major sections, each addressing one major component of the Leibniz-Sparwenfeld exchange: Germanic origins, whether Gothic or Saxon; the languages of Grand Tartary; and their mutual quest for fabled manuscripts that might hold the linguistic data Leibniz was looking for, specifically a trilingual Cumanic dictionary once owned by Francesco Petrarcha (the fourteenth-century humanist) and a Tartaric- or Persian-language itinerary of a journey from Samarkand to China. But first it must be shown what lengths were required before Leibniz gained Sparwenfeld's attention in the first place.

By the fall of 1695 Leibniz had exhausted his Muscovite resources—Vinnius, Reyer, Chuno. The final pages of Gerbillon's letters came through in September, and these Leibniz dutifully sent on to Verjus at Paris after first making a copy for himself. Verbiest's Tartaric grammar would trickle in in pieces over the next couple of years. "That's about all I have," wrote Chuno in September 1695. In October the Brandenburg court traveled through Hanover en route to Cleves, and Leibniz and Chuno met face to face for the first time. Their correspondence did not end, but neither would it resume with the vitality of the previous spring. Just at that moment, though, another front in the comparative study of languages opened up: Sparwenfeld finally wrote from Sweden.

Already in 1690, even before he hit upon the two preliminary dissertations to *Origines Guelficae*, Leibniz had heard of a certain "Sparrenfield" who reportedly was at Madrid researching ancient Gothic monuments by order of the king of Sweden, although probably with little success except for finding a few ancient inscriptions.[1] In the summer of 1691, having taken an interest in Germanic and Asiatic languages, Leibniz learned from Michel-Antoine Baudrand's report as sent by Magliabechi that a Swede named "Sparvenfeldt" was associated with Witsen's map of Grand Tartary and, moreover, that this Sparvenfeldt had spent several years in Moscow making notes for his own map of Siberia.[2] Magliabechi's informant, Baudrand, had met this Sparvenfeldt, who had confirmed that the Muscovite dominion reached all the way across Grand Tartary to the "Amour" River. Although a regular caravan crossed from Moscow to the Ob and Irtisch Rivers and all the way to Beijing, Sparvenfeldt had told Baudrand that the Muscovites would never permit a European, and certainly not a Jesuit like Grimaldi, to cross Siberia and Tartary. With specific knowledge like this, Sparwenfeld was someone Leibniz wanted to get to know. At the time of the Baudrand/Magliabechi report, in June of 1691, Sparwenfeld was about to arrive in Rome, a city he had already visited several times.

The next year, 1692, Leibniz began drawing on his existing correspondents in an attempt to gain some direct knowledge from Sparwenfeld. In an April letter to Giovani Ciampini at Rome he mentioned Sparwenfeld's royal mandate to find Gothic monuments in Spain.[3] In a letter to Nicolas Toinard at Paris, with whom Leibniz exchanged a flurry of letters that year, he added a postscript requesting specific knowledge, as if assuming that Toinard was in direct touch with Sparwenfeld. Had Sparwenfeld indeed found any Gothic or Vandal monuments in his travels to Spain, North Africa, and Italy? Leibniz asked. If he had found any, did any of the characters resemble those in the *Codex Argenteus* such that they might confirm that it was genuinely Gothic?

The *Codex Argenteus* (Silver book), so named for its silver ink on purple-dyed vellum, was the only known surviving example of the Gothic language. Gothic words were transliterated into Greek letters. Its syntax reflected Greek, because it was a literal translation of the Gospels and the Pauline epistles from Greek. Whether Gothic was actually spoken in the rhythm of Koine Greek was a matter of speculation. Paullini had informed Leibniz that the *Codex Argenteus* was found at the monastery of Verden, near Bremen. Bremen was in the Saxon realm. Modern Swedish was much closer to the Saxon dialect than it was to the "Gothic" of the *Codex Argenteus*.

Thus despite this monument, who the Goths were, where they had originated, and by what route they had come to Europe remained uncertain. Leibniz repeated to Toinard the speculation that he had included in his revised proposal for *Origines Guelficae* that same month (July 1692), namely, that Swedish came from Saxon, not the other way around. But he warned Toinard, "In communicating with Mr. Sparwenfeld, I would not touch on doubts that one could have of the Gothicity of the Swedes [*la Gothicité des Suedois*], since these Gentlemen are extremely jealous of their title of Gothic."[4] At the end of the year Leibniz wrote to the Hanoverian resident envoy at Stockholm, more or less repeating what he had said to Toinard.[5] Toinard's October response did not mention Sparwenfeld. The Hanoverian resident at Stockholm did not respond at all.

The Hanoverian resident at Stockholm was Gustav Daniel Schmidt. Being in the employ of Leibniz's patrons, he was Leibniz's first point of contact for all things Swedish. When a correspondence was finally struck up between Leibniz and Sparwenfeld, the letters, manuscripts, and books all flowed physically through the hands of Schmidt. Schmidt received all manner of communications in regular shipments from Hanover and then personally distributed the items to their intended recipients. Schmidt was a busy man. When he received a thin letter from Leibniz requesting that he poke around Stockholm and Uppsala for intelligence about a physician dabbling in Scandinavian antiquities, the royal historiographer whose name Leibniz thought was something like "Arrhenius," "Sparvenfeld," runic writing prior to Charlemagne, plus his laundry-list request that Swedish agents in Muscovy procure language samples from Scythia, Schmidt set the letter aside and did nothing.[6]

Half a year later, Leibniz followed up. In June 1693 he received a letter from Edward Bernard in which the Oxford astronomer and philologist claimed to have derived the origins of the European languages from the Caspian Sea. Parthians, Iberians (he meant the Asiatic variety, not Spaniards), Armenians, and Oriental Tartars shared a common vocabulary with Saxons and Germans and Britons, he told Leibniz. This was not surprising, since most of the European nations, together with their languages, had migrated westward out of Persia, Scythia, and Armenia through Asia Minor and the Black Sea. The exceptions were the Goths. Originally settled on the Black Sea with the Cimmerians and Getes, they had been overcome by invaders from the east. Fleeing west they encountered the Romans, who ultimately expelled the Goths to the north of Europe.[7]

One could imagine Bernard's narrative of migrations as arrows on a map. But, Leibniz wrote to Schmidt, "maps only indicate names, while a knowledge of languages marks the connections or relations of peoples." Leibniz hoped that his first, still unanswered letter to Schmidt had given an ample enough description of the kind of knowledge he sought. He also hoped that the letter had not gone entirely forgotten, particularly because Leibniz knew Schmidt to have the genius and inclination for such researches. But just in case, Leibniz rephrased his charge to Schmidt, now augmented in part by what he had learned from Bernard.

> I would wish to obtain . . . some knowledge of the peoples and languages of Interior Scythia. This matters all the more since most of the peoples of Europe as well as some of those of Asia seem to have departed from there. It is known that in the Roman era some Germanic peoples inhabited the coast of the Black Sea, of which there were a few remnants in Taurica [Crimea]; that a number of Germanic words are found in the Persian language; that reports suggest that a people has been found who have a language close to Hungarian.[8]

It was time to move beyond rumor and speculation. Leibniz needed hard evidence. To Schmidt he repeated the request that he had been sending around in 1692 and 1693, that is, for word lists of basic ideas common to all of humankind, plus Lord's Prayers in the indigenous languages with interlinear translations. He explained to Schmidt how he was in a position to obtain for Leibniz the data he needed to fulfill the task assigned him by the elector, their common employer. Unlike Brandenburg, Sweden did have a resident envoy stationed at Moscow. Moreover, Leibniz knew that Sweden had just dispatched Ludvig Fabritius as a special envoy to Persia.[9] These men might be in a position to instruct agents to procure for Leibniz the language samples he needed. He had heard rumors that a German merchant had been sent to China and that more Germans were stationed as soldiers at the garrison on the Amur River, just a few days' distance from the Great Wall. That is to say, much of Asia was covered by Europeans. Leibniz prompted Schmidt with some talking points for any conversations he might have with Swedish courtiers. He knew that within the Muscovite domain there were Siberians, Samoyeds, and Tartars, as well as other peoples beyond the Ob River as far as China. Outside Muscovy there were numerous peoples grouped under the heading "Tartar"—Nogai, "Czeremisse," Kalmyk—plus an equally diverse set of Mongols (Leibniz named the Bogdai or Niuche, who he thought were the Manchu who had

recently conquered China). Again, these were mere names on a map. Leibniz wanted to know specifically where the different groups were located and to receive some words from the language of each in order to puzzle out how they might be related to one another. He pressed Schmidt to suggest that Armenians, who were known to travel widely, or other interpreters at major commercial centers like Astrakhan or Tobolsk might easily forward some linguistic knowledge through Muscovite and Swedish channels. Also Sparwenfeld—wasn't he due back in Sweden at any moment? Leibniz told Schmidt that Toinard at Paris and Ciampini at Rome had written to him. Although Sparwenfeld had found no Gothic monuments in his travels, still "he could make a thousand other nice remarks," suggested Leibniz.[10]

In October 1693 Schmidt apologized for his tardy response, blaming it on the hassles of transferring from Hanover to his new post at Stockholm, where he had no home and was inundated with affairs both personal and official. Pressed into action by Leibniz's second request, Schmidt arranged a meeting with the Swedish chancellor himself, Bengt Gabrielsson, count of Oxenstierna (1623–1702). In addition to affairs of state, Schmidt broached the subject of Leibniz's linguistic inquiries. Oxenstierna told Schmidt that Sparwenfeld was expected to return any day. He had detoured to the Mathias Corvinus Library at Vienna but was now hurrying home because of the death of his mother. Oxenstierna told Schmidt that he would instruct the Swedish archivist to send to Leibniz anything from Sparwenfeld's research notes that was suitable for public consumption. Schmidt also informed Leibniz that the Swedish resident at Moscow had been contacted regarding Scythian languages.[11] A bit delayed in coming, perhaps, but this was yeoman's work.

Leibniz was grateful for Schmidt's efforts. "One could say of your letters: they compensate for their lateness with the gravity of favor." Reiterating the importance of Muscovy to his project, he prompted Schmidt with another set of talking points. Obtaining such simple language samples should not be at all difficult, Leibniz suggested, provided one could get the Swedish ministers there interested. That Schmidt seemed to have piqued Chancellor Oxenstierna's interest gave some cause for hope. Others in Sweden might be able to assist also. Was Fabritius back from his embassy to Persia? He must have encountered many languages around the Caspian Sea. What about Bengt Skytte, the late imperial senator whom Leibniz had once met at Frankfurt? He had been working on the harmony of languages. Had he left behind any notes? But the person Leibniz really needed was Sparwenfeld. "You can't rush

correspondence with the Republic of Letters," he acknowledged.[12] Indeed, Leibniz's first contact with Sparwenfeld was still nearly two years away.

Several months later, his *Codex Juris Gentium Diplomaticus* having been printed, Leibniz sent a copy of the volume to Schmidt at Stockholm, intending the gift for Chancellor Oxenstierna, in hopes of shoring up this tentative line of correspondence. This was the same technique he would attempt shortly with Eberhard Danckelman in Berlin. The Swedish result was similar. Although Danckelman was too busy in Berlin to dabble in Leibniz's curiosities, Leibniz gained the assistance of Chuno. So from Stockholm, Schmidt informed Leibniz that Oxenstierna's secretary, Balthasar Ehrenstolpe, had undertaken to procure knowledge of the languages of Scythia.[13] But still there was no word of Sparwenfeld. In early 1695 Leibniz prodded Schmidt again, and Schmidt responded promptly with the news that although Sparwenfeld had returned to Sweden a few months earlier, he was avoiding Stockholm under "the campaign to put his domestic affairs in order." It seems Sparwenfeld was a newlywed, having married upon his return a prominent merchant's twenty-year-old daughter; together they would produce eight children in the next nine years.[14]

Finally, in the fall of 1695, after months, nay, years, of nagging, Schmidt finally cornered Sparwenfeld in the queen mother's antechamber in the Stockholm palace. Sparwenfeld protested to Schmidt that he had nothing to offer Leibniz, but Schmidt placed a letter in Sparwenfeld's hand anyway. Still unable to approach Sparwenfeld directly, Leibniz had sent a letter along with Alexander Theodor von Ehrenburg, the Swedish resident envoy at Vienna, then returning to Stockholm, who apparently passed through Hanover en route. Having failed to gain Sparwenfeld's attention through the topic of languages and migrations, Leibniz tried a different tack. To Ehrenburg he addressed not Germanic origins but his *Codex Juris Gentium Diplomaticus*. Thus captured in a pincer maneuver between Schmidt and Ehrenburg, there was little Sparwenfeld could do but respond to the persistent Mr. Leibniz.[15]

Having traveled widely in the republic of letters, Sparwenfeld had met personally many of the scholars whom Leibniz knew only through correspondence. He knew personally the savants of Paris, and at Escorial in Spain he had overlapped with the Jesuit of China Philippe Couplet for the greater part of a year.[16] He had crossed the Mediterranean to Tunisia, where he had met with librarians and antiquarians whose language was Arabic, and at Rome he

had circulated through the same learned circles as Leibniz just a year after Leibniz himself had been there. Sparwenfeld even knew Magliabechi from Florence.

Despite his dependence on the good will of librarians and scholars for locating the books he sought and for advice about monuments that he himself did not know existed, Sparwenfeld was not a showman but sought to maintain a low research profile. He took offense when the Jesuit Pierre Besnier announced Sparwenfeld's project in an essay surveying the state of the art of historical etymology in the various languages of Europe. Even worse, a letter Sparwenfeld had written describing his project to the Abbé de Dangeau was read aloud before the Académie française. "That cost me his friendship," Sparwenfeld complained.[17] In fact, Besnier had placed Sparwenfeld in the most favorable of lights, expressing hope for great things that might come from his travels:

> If Mr. Sparvenfeld could put a stop to his Travels, and take the time necessary to a work of genius, he would sort out for us better than any scholar what should be believed about these Languages of the North. What he has expressed to me on the connection of Gothic, Icelandic, and Finnish demonstrates his profound penetration. The voyage that he is going to make to Africa, in the hope of finding there the tomb of Hundric or Genseric, demonstrates his curiosity and his zeal to enrich the History of the North at any price and with any risk that such might entail.[18]

Leibniz saw no reason for Sparwenfeld to have taken offense. He responded the same way he had to J. P. Ericus when Ericus had taken offense at an innocuous mention of his work by Wilhelm Ernst Tentzel: he copied out the offending passage and sent it to Sparwenfeld with compliments.[19]

Sparwenfeld also jealously guarded his knowledge. Despite the years he had spent as a traveling scholar, his actual scholarly output was practically nil. He had compiled a *Lexicon Slavonicum*, which he left in the care of Edward Bernard at the Sheldon Theatre, then the home of Oxford University Press, but Bernard died in 1697, and lacking a patron to see it through to publication and to subsidize the printing costs, the manuscript languished there. At Rome he had left another Slavic lexicon at the court of Pope Innocent XII, but this manuscript too slipped between the cracks and was never published.[20] At Amsterdam Sparwenfeld had left detailed geographical and ethnological documentation of Asiatic places and peoples. These were supposed to be used by the mapmakers at the Johan Blaeu Press to supersede or at least revise and

correct Witsen's map, which, as we have seen, was printed in only a very small run and was rare already by 1692. But Blaeu's press shop was already full, as its own engraved plates were being printed in eleven volumes as the most up-to-date world atlas. Sparwenfeld figured that even though his map was under contract, Blaeu wouldn't embark on a new project like Sparwenfeld's until the press's own atlas turned a profit.[21] Thus, Sparwenfeld's map of Siberia also was never printed.[22] At Stockholm, because Sparwenfeld's travels had been commissioned and financed by the Swedish crown, the crown also held the intellectual property rights to his notes and the manuscripts he had collected and copied.[23] Since there was no bureaucratic apparatus to actually do something with those notes and manuscripts, Sparwenfeld in fact exercised substantial control over his collection. Nevertheless, Chancellor Oxenstierna was well within his authority to assure Schmidt that he could instruct the royal archivist to send Leibniz anything suitable from the things Sparwenfeld had collected.[24]

Historia Gothorum (1695–1697)

In writing about the origins of the people of Lower Saxony, the history of the ancient Saxons and their prehistoric migrations was of crucial importance to the second preliminary dissertation to *Origines Guelficae*. The ruling House of Braunschweig-Lüneburg had a dignified noble ancestry that Leibniz had shown extended in Germany nearly to the year AD 1000, and there it merged with the Italian House of Este, whose lineage reached as far back in time as did Roman history itself. The people of Lower Saxony enjoyed an ancient lineage of their own. They appeared as a formidable force in eighth-century Frankish chronicles. And the Low German languages that shared an affinity with Old Saxon—Dutch, Danish, Swedish, Anglo-Saxon, Icelandic—suggested that the Low Saxons had spread far beyond Lower Saxony itself. Leibniz had a hunch that the Saxons were the mother set of many of the peoples presently settled around the North and Baltic Seas. If he could find linguistic evidence to confirm this hunch, then the House of Guelf would look all the more dignified given the antiquity of the people it governed.

The chief challenge to this theory of Saxon origins was represented by Johan Gabriel Sparwenfeld. He had been sent on a royally funded research expedition to find evidence to reinforce a theory that not the Saxons but the Goths represented the origin of the Germanic peoples. The theory of Gothic origins hardly began with Sparwenfeld. He stood as but one in a long line of Swedish scholars who had been assembling such evidence for more than a

century and a half. Olaf Rudbeck, his contemporary, was writing a comprehensive history of the peoples of the North that reached all the way back to Homer and Troy. Rudbeck's work would eventually fill four volumes before the Leibniz-Sparwenfeld correspondence came to an end. In the previous generation, Georg Stiernhielm and Bengt Skytte had argued in favor of Gothic origins, much of their evidence based on historical linguistics.[25] The Gothic-origins hypothesis went at least as far back as Olaf and Johannes Magnus, in the 1530s, whose medieval antiquarianism, not unlike Leibniz's, legitimized the ruling dynasty and, in their case, the independence of Sweden from the Danish monarchy.[26]

And it was not only Swedes who argued for the Gothic origins of the European peoples. No less a figure than Hugo Grotius left behind a massive manuscript on the history of the Goths, the Vandals, and the Lombards. Ten years after his death, Elzevir in Amsterdam published the work in some one thousand quarto-sized pages. The post-Grotius volume included an edition of Jordanes's *De Getarum sive Gothorum origine, et rebus gestis*, the most important work from antiquity on the origin of the Goths, from which Grotius had pieced together much of his analysis.[27] Sparwenfeld was not so ambitious as to attempt to rewrite or refute that Grotius's *Historia Gothorum*, but he did intend to augment it, or at least to add some commonplaces—pearls, as he put it, that someone else might string together.[28] But initially Sparwenfeld did not tip his hand to reveal where he stood with respect to his compatriots—Stiernhielm, Rudbeck—who argued that the Goths were indigenous to Scandinavia. Leibniz pressed Sparwenfeld on the question. He suggested that although it was true that some "Goths" had joined the tribe in Sweden, the nation as a whole had not originated there. Instead, Leibniz hypothesized, the Goths were a colony of Getes, who had migrated from their homeland on the Black Sea to the Baltic Sea, occupying both shores there. Subsequently, this Baltic colony had rejoined their Black Sea compatriots sometime before they invaded Rome.[29]

Leibniz must have been relieved to hear that rather than following the Swedish party line, Sparwenfeld actually agreed with most of this. Although he declined to comment directly on Rudbeck and Stiernhielm, referring Leibniz instead to Stiernhielm's *Anticluverius*, he personally backed away from his Swedish colleagues, saying, "I do not engage in material so ancient, so unwelcoming, and so sterile."[30] For his part, Sparwenfeld was willing to entertain the idea that the Goths were not indigenous to Sweden but had migrated from elsewhere. It was probably best to acknowledge that they were descendants of

the Getes. As for the original location of the Getes on the north shore of the Caspian Sea, he referred Leibniz to the Arabic and Persian geographers, specifically a French translation of a Persian life of Tamurlane to be published soon.[31] Beyond these bibliographical notices, on Gothic migrations Sparwenfeld did not offer Leibniz much in his first letters, largely because, despite his travels, he did not have much to offer.

Leibniz politely encouraged Sparwenfeld to exert himself in the field of Scandinavian antiquities. He wished that "a penetrating and sincere man" would examine the manuscripts and monuments that had been found in the North. Saxo Grammaticus and the Edda did not agree very well, and the other ancient histories of Scandinavia, "like those that Verelius published, seem also deeply muddled." It would take a person of "discernment and leisure" to draw something solid from this mess of mythology. "You have the one," he told Sparwenfeld, meaning the discernment, "but you lack the other." Leibniz wondered whether the Swedish Academy of Antiquities, under whose auspices many of the Old Norse manuscripts had been published, including those edited by Olaf Verelius, was still at work on this project. Even a catalog of manuscripts, preferably at least minimally annotated, could bring some light to those dark ages.[32]

How old were those Scandinavian histories, anyway? Did the famous runic script predate the Carolingian period and the advent of Christianity in the North, or were runes not truly ancient? Leibniz pulled out a fifty-year-old catalog of coins, manuscripts, and inscriptions that had survived from the earliest history of Spain.[33] Ten of the items bore a very ancient script that looked something like Scandinavian runes. A Danish antiquarian, Ole Worm, had identified two of those items as Gothic, from the fifth or sixth century, during the Visigothic kingdom of Spain.[34] Lastanosa, the author of the Spanish catalog, had identified them as even older, indigenously Spanish from the Roman or even the Carthaginian period. Leibniz was inclined to agree with Lastanosa's judgment, although he was open to the possibility that, having a runelike appearance, they could be evidence of some kind of communication with the North.[35] He thought the coincidence of the runelike ancient Spanish writing on Lastanosa's coins deserved some explanation. He wondered whether Sparwenfeld had found any other Gothic monuments during his months at the Escorial library. Leibniz knew the Escorial had suffered a fire in 1671, but he imagined that not everything had been burned.[36]

As the national archive of Spanish antiquities, Escorial had been a principal destination of Sparwenfeld's travels. He spent nine months there, from

November 1689 through August 1690, looking for historical evidence of the Goths at the same time that Leibniz was in Italy looking for historical evidence of the Guelfs and the Este. For Sparwenfeld in Spain, it was known that the Vandals, accompanied by a group of Suebi, had traversed Roman Hispania in the second and third decades of the fifth century AD. The Vandals had kept moving, crossing to Africa in 429, but the Suebi had established a kingdom in Galicia, on the Atlantic coast, in the northwestern corner of Spain. The kingdom of the Suebi had endured into the sixth century, when it was subsumed by the Visigothic kingdom. The Visigoths had arrived about the time when the Vandals departed, and they had ruled the Iberian Peninsula until the Muslim conquest in the early eighth century. With a Germanic heritage some three hundred years long, surely there must be a trove of evidence both material and textual, even if only fragmentary, attesting to this long-enduring presence. In the 620s, under Visigothic dominion, the bishop of Seville, Isidore, had written histories of the three Germanic nations that had conquered Spain. A millennium later, Lastanosa had published the "museum" of Spanish coins and inscriptions that Leibniz read. Sparwenfeld went to the Escorial expecting to find more evidence of that Gothic presence, but there was nothing beyond Lastanosa. Instead he had found a lot of imaginative and wishful thinking in the world of scholarship, and he warned Leibniz that those who pretended to have found Gothic remains in Spain, Italy, and France very often did not know what they were talking about. "One finds some inscriptions here and there, but restored, and how could 800 years not have introduced Monism in places where Barbarian Christians formerly lived?"[37]

Sparwenfeld's voyage to Tunisia had been no more successful than his months at the Escorial. He was not able to locate the tombs of the Vandal kings from the fifth century AD. Nevertheless, a librarian at Tunis had placed in his hands a twenty-volume anthology of Arabic historians that exposed where Barthélemy d'Herbelot had found the material for his *Bibliotheque orientale*.[38]

Lacking tangible monuments—manuscripts, inscriptions, coins—of the Gothic presence in Spain, Sparwenfeld was forced to retreat to a much more subtle, although enduring monument—language. In a letter of November 1696 Sparwenfeld advanced to Leibniz an argument that single-syllable roots were evidence of the antiquity of a word. He mentioned Chinese in particular. By extension, a language with many monosyllabic roots would likely be older than one with fewer monosyllabic roots. This principle suggested to him that Swedish was more ancient than German. Even if the North

had been inhabited before the arrival of the Goths, and even if the Goths themselves were Germanic [*Theutones ou Allemands*], nevertheless the land of Sweden functioned at least as a conduit if not as a *vagina*. At any rate, wrote Sparwenfeld, "there is no doubt that the Saxons were originally from the Land of the North."[39] "When I have the leisure to skim through Notker," he added, "I'll find you some words purely Swedish."[40] Sparwenfeld was referring to Notker Labeo (ca. 950–1022), of St. Gall in Switzerland, who wrote commentaries and translations of ancient philosophers and Old Testament Psalms in Old Allemanisch. Later, when Leibniz mentioned an edition of medieval texts that he was publishing, Sparwenfeld suggested, "You ought to edit for us this old translation and paraphrase on the Psalter of David in the ancient *Allemand* of Notker, monk of St. Gall, in the library of this Monastery of St. Gall in Switzerland."[41] Clearly, Sparwenfeld had handled the codex himself; he described its beautifully preserved vellum folio leaves, an ornament to the Old German language in the century after Otfrid.

Already in his first letter to Leibniz, Sparwenfeld pushed the idea that Swedish (and by extension Gothic) was the original Germanic language. In that letter of 1695 Sparwenfeld copied out two brief notices from a twelfth-century *Sächsische Weltchronik* (Saxon world chronicle) composed in Middle Low German. He pointed out that the language was "more Swedish than German." "You would be surprised," he wrote, "if I were to show you an infinite number of German [*allemans*] words from the eighth through the eleventh century, what are still today purely Swedish-Gothic [*Sueo-Gothiques*]."[42] Leibniz was not taken with the priority-of-Swedish argument, but he did acknowledge that in terms of content the *Weltchronik* fragment could contain some useful items for history.

Which Iberia? In Which Georgia?

It was not even clear from which direction the Goths had come to Spain. In very obscure French that even Leibniz sometimes misunderstood, Sparwenfeld suggested that as Jordanes had written, the Goths had originated with the nation of Getes. On the basis of the heroic name Odin, Sparwenfeld speculated that this ancient Gete homeland was the town of "Chasgard," or in Persian, "Odir Kend," near the Caspian Sea. From this ancient Gete homeland in what he called "Turquestan," two "sister" colonies had emigrated. Both sisters derived their scripts from that common ancestor, and this accounted for the similarity between the runic script of pre-Christian Scandinavia and Lastanosa's script of pre-Roman Spain. One of these colonies had emigrated

northward over land to Sweden. These were the Goths. The other had migrated through Old Iberia and then sailed by the Black Sea and the Mediterranean Sea to Spain.[43]

For one not versed in the seventeenth-century antiquarian reconstruction of human origins and national migrations, a passage from "Iberia" to "Spain" can only be read as absurd. However, in antiquity there were two Iberias. One was the "Iberian Peninsula," at present occupied by the states of Portugal and Spain. The other was in the Caucasus—that contested territory (still to this day) south of the ridge in what is now Georgia, Armenia, Azerbaijan, Turkey, Iran, Iraq, and the stateless, yet nevertheless existing Kurdistan. From this Old Iberia emigrated plausibly the Basques, the Irish, the Iberians of Spain, and, as Sparwenfeld suggested to Leibniz, a colony of the Getes called the "Gotes." Sparwenfeld suggested that the Goths were led by a king named Odin, who was later euhemerized as a god. Odin, Sparwenfeld speculated, was not so much a person as a place name referring to the Caspian location Odir Kend.

All of this sounds highly fabulous (as in "fable"), but Sparwenfeld was by no means original in these speculations. Rudbeck and Stiernhielm aside, Sparwenfeld was actually drawing on Snorri Sturlason's *Prose Edda* from ca. 1220. In the prologue to the *Prose Edda*, Snorri described Odin as a heroic king from a Thracian branch of the Trojan dynasty. Odin was born about nineteen generations after King Priam. He migrated to northwestern Europe, where he set his three sons up in Saxony, Westphalia, and France (or at least "Frankland"), while Odin himself ruled in Jutland, the islands of Denmark, and Sweden. Sparwenfeld did not invoke Snorri nor Icelandic mythology when he suggested to Leibniz that *Odin* might have been a place name that subsequently was euhemerized as a hero-king and then a divinity, but there was a certain consonance in the idea that the Goths might have originated somewhere in the East and then migrated to northern Europe.

Then what of the Venerable Bede, Leibniz wondered, who had reported in his *Ecclesiastical History of England*, ca. AD 731, that the first Saxon chieftains to arrive in Britannia, the brothers Hengist and Horsa, were fourth-generation descendants of "Uoden"?[44] "Do you believe, then, that there were two Odins?" Leibniz asked two years into their correspondence, by which time they had become more comfortable and open with each other.[45] "We have no doubt here that there were two Odins," responded Sparwenfeld. "As for the rest," he continued, speaking of the Venerable Bede, "I'm not going to get myself into any more trouble."[46]

Leibniz hoped that the reconstituted Swedish College of Antiquities would resume publishing and investigating the most ancient monuments of Scandinavian history. He expressed hope that these investigations would be supported "by something more than the knowledge of some ancient Edda or Saga . . . since these pieces are not so very ancient. Nevertheless, there is reason to preserve and employ them, however fabulous and trifling they may be, since one can always extract gold from shit [*aurum ex stercore*]."[47]

Standing on the dock at Danzig in November 1687, Philippe Avril waited for his ship to come in. On board was his missionary partner, Louis Barnabé, with whom he had hidden out in Armenia and traveled in a caravan in the summer heat disguised as Georgians to the Caspian Sea and up to Astrakhan, where together they had endured swarms of biting flies. "Of all the plagues of ancient Egypt," Avril later quipped, "no doubt the plague of flies was the worst." They had endured winter cold together when their Volga River ship caught fire, leaving them stranded and very nearly captured by hostile Kalmyks. A Persian envoy had rescued them and placed them in horse-drawn sleighs, the river now frozen, and they had entered a Moscow sparkling in the winter snow only to be expelled several weeks later for lack of proper documentation.

The door left open to crossing Siberia to China if they returned with proper identification, at Warsaw Avril and Barnabé split up. Barnabé returned to France, where Antoine Verjus and François de La Chaise interceded for him in procuring royal passports. Even better, they were made members of the Royal Academy as astronomer-mathematicians, issued letters patent to that effect, and outfitted with the latest in global-positioning equipment—sextants, telescopes, barometers, and other delicate and expensive devices. These items carefully stowed, Barnabé traveled to the port of Rouen, accompanied by a young Jesuit novice named François Nivard. Antoine de Beauvollier was supposed to meet Barnabé at Rouen and join the expedition, but he arrived too late and the ship sailed without him. And to his good fortune: Avril's ship never did come in. Off the coast of Norway in a late autumn squall the ship was wrecked, the crew, its passengers, and all materials lost. Beauvollier traveled overland to Warsaw, and this is why he, instead of Barnabé, ministered to the condemned Brabanter at his execution.

Leibniz knew this dreadful story. He knew that Philippe Couplet had told Avril in 1684 that of six hundred missionaries who had attempted to reach China in the past century, five hundred had perished in the attempt. Leibniz

had even recently learned that Couplet himself had perished at sea somewhere in the Indian Ocean short of Goa. Sometimes even routine voyages, like a run from Normandy to Danzig, suffered shipwreck. Nevertheless, Leibniz showed few qualms about sending rare books and manuscripts for which he was responsible across the treacherous sea.

When Leibniz panned the Icelandic Eddas with the Latin insult *aurum ex stercore*, Sparwenfeld responded by showering Leibniz with a cache of Icelandic sagas.[48] For good measure, he sent a copy of Stiernhielm's *Anticluverius* as well. Leibniz counterresponded by sending a fourteenth-century codex from the Wolfenbüttel library that contained fragments of two Old Norse sagas.[49] Since copies of the codex were already exceedingly rare in the late seventeenth century, Leibniz's sending it with a mid-level envoy aboard a flimsy sailing ship across the Baltic indicates the confidence scholars had in the exchange of manuscripts across the republic of letters. No librarian in the twenty-first century would entrust such an artifact even to a professional courier service, despite computerized tracking numbers to follow its course. The codex arrived intact. Sparwenfeld was not particularly impressed. He collated the Wolfenbüttel codex against the complete *Heimskringla*, thus both identifying it and reading it for variants, and sent it back with the Hanoverian envoy on his return. Seeing that the ducal library at Wolfenbüttel lacked Snorri's *Heimskringla*, he sent a two-volume edition of the complete work as well.[50]

"I'm very afraid that you'll consider me a failure," Leibniz wrote, humbled by Sparwenfeld's generosity with books. "What often happens to debtors has happened to me also: The size of the debt itself has an effect contrary to what is owed. Instead of advancing payment, it delays it on account of the difficulty that it has to satisfy."[51] He hastily assembled a package in an attempt to balance the books (so to speak), but being at Wolfenbüttel at the moment, he could not even include in the package his own recently published *Novissima Sinica*. He instructed the envoy to try to purchase a copy for Sparwenfeld during his layover in Hamburg.[52] Leibniz was doing more than trying to carry on a conversation with Sparwenfeld. He was asking him for specific knowledge both of his own travels and of the scholarship on antiquities in the North. Sparwenfeld asked for almost nothing in return, while the packages he sent once or twice per year were full of books. With one letter alone Sparwenfeld sent Leibniz half a dozen recent works on Gothic antiquities,[53] as well as a catalog of copperplate engravings of Swedish-Gothic coins,[54]

and he mentioned Peringskiöld's forthcoming 1699 edition and commentary of Johannes Cochlaeus's *Life of the Ostrogothic King Theodoric* (1544).[55]

There was little Leibniz could do to balance accounts. To make matters worse, the one book that Sparwenfeld did request, Leibniz could not deliver. On the basis of his years in Moscow and his travels through eastern Europe, Sparwenfeld had compiled a lexicon of the various Slavic dialects and languages. Some of his interest was related to the origin of the Goths and whether the Germanic and Slavic peoples might share a common origin (Sparwenfeld concluded that they did not). Some of his interest was in compiling a *harmonium Slavorum*, a combined dictionary and grammar organized for the purpose of showing the specific relations between all the Slavic languages. Early in their exchange, Leibniz mistook Sparwenfeld, thinking that he was actually working on such a *harmonium Slavorum*. In fact, although Sparwenfeld acknowledged that such a *harmonium* would be useful, he himself was not the person to accomplish it. Sparwenfeld's ambitions were limited to a general Slavic lexicon, a much more empirically based reference work as opposed to a theoretical work that teased out the lateral relations between the various languages in the Slavic family. In any case, one book was missing from Sparwenfeld's collection, a sixteenth-century exposition of the Carniolan language in what is now Slovenia, whose author claimed to have created a key for the easy understanding of the other Slavic languages—Russian, Ruthenian, Polish, Bohemian, Lusatian, as well as Dalmatian and Croat. Sparwenfeld knew of the book, but he had not seen it. He hoped that perhaps Leibniz could borrow a copy for him.[56]

Leibniz knew of the Carniolan book. He had seen a reference to it in an auction catalog, but he had learned of the estate sale too late and missed out on purchasing the library. In early 1697 he promised Sparwenfeld that he would try to track the book down for him.[57] Wilhelm Ernst Tentzel, the librarian at Gotha, seemed to know everything about books in the German realm—he was sort of the Magliabechi of northern Germany. Leibniz wrote to him to see whether he knew who had acquired the book and, if so, whether Tentzel might ask to borrow it for Leibniz. It took a few months, but Tentzel found the book. It was in the possession of a Wittenberg professor named Conrad Samuel Schurzfleisch.[58] This was the same Schurzfleisch whom Anthony Grafton has celebrated as "the most distinguished Wittenberg professor of the generation after the Thirty Years' War" on account of his polymathic curiosity and Latin eloquence.[59] In the Leibniz-Sparwenfeld narrative, though,

Schurzfleisch is an antagonist, a long-since-forgotten pedant who swept in to gain control of a rare but needed book and then sat on it. At the end of 1697 Leibniz reported to Sparwenfeld, "I have requested it, and he has not exactly refused it, although he has said it in a funny manner," as if he were afraid to refuse the request but also to find the book. "He passes for a not very obliging man in this genre; I don't hope for great things on his part."[60] Discussing Schurzfleisch's unwillingness to engage Roman mores in reading the poet Catullus, Grafton warns us "not to overestimate the humanity and open-mindedness of the polyhistors."[61] Leibniz and Sparwenfeld would have agreed.

Leibniz did manage to find an extract of the Carniolan work in a volume on Transylvania in what is now Romania. He copied it out and sent it to Sparwenfeld. In the meantime, he wrote to France hoping to procure the complete work from that direction.[62] But he was unable to tip the balance in his favor by fulfilling even this one request of Sparwenfeld's. Sparwenfeld suspected that Schurzfleisch had probably never possessed the Carniolan book in the first place. "In any case, I'm sure that I would learn nothing from this Bohorizius."[63] "I have tried in vain so far to learn something about the remnants of the ancient Goths or *Germains* in Crimea," Leibniz wrote in another letter.[64]

Tartaric Languages (1695–1697)

In his first, icebreaking letter to Leibniz, Sparwenfeld begrudgingly rattled off answers to questions about Asiatic peoples and languages that Leibniz had posed to the returning Swedish envoy Ehrenburg. Sparwenfeld had written in a terse, news-of-books fashion, a series of very brief statements with little explanation or reflection.

> The Siberians ordinarily speak a corrupted Slavic. The Samoyeds have a language similar to that of the Lapps, they are also of the same race [*race*], and of the same proportion of Body, they are all pagans, and the Muscovites have had less trouble than the Swedes regarding the conversion of these nations there. The Kalmyks and the Mongols all speak every sort of language, like Turkic, Siberian, Chinese, and the language of the Lamas on whom they are dependent in part.[65]

Leibniz must have parsed these statements carefully: Siberians, descended from Slavic; Lapps and Samoyeds of the Far North were related; the nomads of Grand Tartary (Mongols and Kalmyks) were polyglots, speaking Tibetan and Chinese in the east, Siberian (which had just been described as Slavic) in the north, Turkic in the west. But what were their own native or indigenous

languages? Sparwenfeld did not say. Instead Sparwenfeld muddled them together in a single sentence of impenetrable French: "I have no doubt that the language of *Turquestan* would be nearly universal among, being very near to Scythian where we found a great number of our Gothics, as well as in Persian which has almost nothing remaining in common with Turkish and Arabic."[66] What did Sparwenfeld mean by *la langue de Turquestan* in the singular—was he implying a single universal language descended from Scythian? What about Gothic and Persian—was Sparwenfeld in agreement with Leibniz that these languages shared a common origin in Scythia? (And if so, how did that bode for the Swedish-origins hypothesis?) If modern Turkish and Arabic "had almost nothing remaining in common" with post-Scythian Gothic and Persian, did "remaining" imply that Turkish and Arabic also shared a Scythian origin?

Leibniz needed more than these terse speculations. When he replied, he coaxed Sparwenfeld to get him empirically verifiable data. He understood that Sparwenfeld himself did not have the data, but he might be in a position to get them. "I am very pleased to learn that the language of the Samoyeds is close to that of the Lapps," he began, omitting mention of the Slavo-Siberians. "I would like to know something more of the languages of the Kalmucks, the Mongols, and of Turquestan and other Scythic peoples," he continued, pluralizing the set that Sparwenfeld had presented as monolithic. He suggested that merchants who traded with the Muscovites might be able to obtain language samples, but he did not elaborate as he had so many other times to Chuno, G. D. Schmidt, Grimaldi, and others. Instead he offered that "scholars have made big claims about the relationship between Persian and *Germanique*, but when I looked into it, I found fewer related words than I had expected."[67]

In a recent travel report by a French missionary stationed in Persia that had been published at Leipzig that year, Leibniz read of an oppressed minority in Persia that still clung to the ancient Zoroastrian religion of their ancestors despite considerable pressure to join the "modern Persians" in converting to Islam. "The modern Persians call them Gavres, that is to say, Idolaters," wrote the French missionary, "and they treat them even worse than they treat the Jews."[68] In holding out against cultural modernizers, these "ancient Persians," as the author called them, also persisted in using an ancient language. "They have retained the ancient Persian *Idiome*, they write with the same Characters as the ancients; this Language is entirely different from that of the modern Persians, but few people among them know how to read and write." The missionary explained that these ancients were excluded from commerce and public affairs, virtually enslaved as menial laborers by the moderns.[69] Leibniz

pointed out to Sparwenfeld that in some provinces the ancient Persian was still spoken and that it was very different from the modern. "But," he speculated, "maybe it's just another dialect."[70]

How wonderful it would be to have some examples of that still-living ancient Persian dialect. How impossible it would be to get them. Leibniz did not even make the suggestion. Instead he asked Sparwenfeld what he meant in that muddled sentence about a Scythic language. "Surely you must have reasons to judge, Sir, that the language of Turquestan must be fairly universal and fairly close to Scythic. But I don't understand whether by this term *Scythique*, in which you say that a number of Gothic words is found, you mean any modern language."[71]

Modern Scythian—Sparwenfeld had not thought of that. In any case, it would merely be Turkish. When he finally wrote back nearly a year later, at the end of 1696, Sparwenfeld punted, admitting that Leibniz's knowledge of the languages of Tartary was far ahead of his own. His own inquiries from the early 1690s were already fading from his memory. Henceforth, Sparwenfeld would simply follow Leibniz.[72]

Meanwhile, Sparwenfeld reported that he had written to a friend at Moscow requesting samples of the Kalmyk and Mongol languages as well as that of Turkestan. As for those living in Turkestan, Sparwenfeld was pretty certain that "the pure and ancient Turkish must be their universal language."[73]

On the topic of Tartaric languages their conversation lagged. Leibniz wrote in early 1697 trying to revive it: "I strongly wish to be able to understand one day more of the particularities of the languages and peoples of Tartary, and how different from each other are the Siberians, the Czircasians, the Kalmucs, the Mogalles, the Usbecs and the Lamas of China." This was the whole of central Asia, from the Urals and the Caucasus to the Altai Mountains and Tibet. The center of the earth's largest landmass represented an enormous abyss in the European knowledge of the world, an abyss out of which the European peoples themselves might have emerged. It was baffling that there should be virtually no specific knowledge of the languages and nations of a region more extensive than the whole of Europe. *Grand Tartary*—what did the term even mean? "I don't know whether the language of these Kalmucs bears any relation to the language of Turquestan as that of the Tartars of the Crimea, of whom the language as I believe has enough conventions with that of the Turks. If you have any knowledge of it, I ask you to tell me your sentiment on the connection of Languages."[74] Heinrich Wilhelm Ludolf (1655–1712), nephew of Hiob Ludolf at Frankfurt, had mentioned in an appendix to his

Grammatica Russica that Muslim merchants, Buchartzi, traveled all the way to Siberia. "I imagine that these are the Uzbecs of Bochara," Leibniz added.[75]

Nonlinguistic Classifications: Religion

Beyond language, which was proving nigh unto impossible to procure, Leibniz began to toy with other means of discerning the relations between nations. Religion was one possibility, although admittedly a weak one. "If it is true that the Calmucs as well as the Mugalles, and the Tartars of China are under the control of the Grand Lama in matters of religion, it could be that there is also a rapport for the languages, and the origins of the peoples."[76] Several times in the linguistic correspondence, Leibniz's informants used religion to demarcate the peoples of Siberia and central Asia. For example, Sparwenfeld noted that the Muscovites had experienced less difficulty in converting the Samoyeds to Christianity than the Swedes had in converting the Lapps. This remark came in conjunction with Sparwenfeld's connecting the Lapps and Samoyeds in terms of language. Adam Brandt, in his description of the Muscovite legation to China that Leibniz was about to publish in *Novissima Sinica*, had also employed religion to distinguish the boundaries of the peoples through whom the embassy caravan had passed. But Leibniz knew that Christians are made, not born, and the same seemed to be true of Tibetan Buddhists. Speaking of those Kalmyks, Mongols, and Chinese Tartars, all of whom venerated the Grand Lama, Leibniz noted that "the size and constitution of the body is very different between them."[77]

Nonlinguistic Classifications: Race

This raises the question of race. Some scholars have attempted to attribute a German invention of race to the end of the eighteenth century, but in the Leibniz-Sparwenfeld correspondence we see both the term and the concept associated with it a good century earlier.[78] Nor did Germans have any monopoly on it. From Stockholm Sparwenfeld employed the term *race* in an offhand manner a year before Leibniz invoked it.[79] And Leibniz took his usage of the term from a notice he had read much earlier in the French *Journal des Sçavans*. He could not remember the precise citation, but off the top of his head he recalled that the author had

> divided men into certain tribes, races [*races*] or classes. He gave one race [*race*] particularly to Lapps and Samoyeds, another to Chinese and peoples nearby; another to *Negres*, yet another to *Cafres* or *Hotentots*. In America again there

> was a marvelous difference between the *Galibis* or *Caribes*, for example, who have much merit and *esprit*, and those of Paraguay, who seem to be infants or schoolchildren their entire life. That doesn't prevent that all men who inhabit this globe might be all of the same race [*race*], which has been altered by the different climates, as we see that beasts and animals change of nature and become better or degenerate.[80]

The essay Leibniz was thinking of has been identified as a short proposal for a "new division of the earth" according to "four or five Species or Races of people of whom the difference is very notable."[81] The author was François Bernier, an associate of Pierre Gassendi who popularized the corpuscular philosophy by means of a French-language abridgment (Gassendi had written in Latin). Bernier had trained as a physician in a crash course at Montpellier and had subsequently taken his credentials to Syria, Egypt, Persia, and ultimately India, where he spent a few years as the personal physician of a ranking nobleman at the Mughal court. Upon returning to France in the late 1660s, Bernier had written an account of the present state of the Mughal Empire. Together with other physicians and naturalists, he had been invited to attend the salon of Mme de La Sablière. It was in the context of her salon that Bernier proposed this new division of world regions according to the classification of human types rather than by geography.

Siep Stuurman offers the best discussion of Bernier's "new division," situating it at the "beginning" of a long trajectory leading toward modern racial thought. Most seventeenth-century travel literature considered physical features as but one accidental criterion among many others, including language, governmental form, social structure, and religion. And because Bernier did not define his four or five species with particular rigor, and because he did not treat skin color as a clear racial demarcator, Stuurman presents Bernier as typical of seventeenth-century anthropology in many respects. However, because Bernier thought to grant physicobiological characteristics foundational status (i.e., to grant that they were not merely accidental), such that a whole new classification could be built upon "species or race," Stuurman credits Bernier with a significant innovation. Bernier's innovation was not necessarily favorable, though, because once human physical features were essentialized, the way was open to a more modern anthropology explicitly linked to racially justified slavery and European ideologies of domination.[82] Worse, fully half of Bernier's proposal discussed the relative beauty of women

whom Bernier had encountered.[83] His two fullest descriptions of female beauty were based on slave girls whom he had seen at auction.

The Akademie Ausgabe editors identified Bernier's essay as the source of Leibniz's four-sentence discussion of race as a possible means of determining the relations between nations. But there is more going on in Leibniz's brief passage. It is true that Bernier's identification of the Lappo-Samoyeds as a coherent race did confirm for Leibniz what Sparwenfeld had previously told him about the similarities of their languages. But the similarities stop there. What Leibniz described as the classification of "Chinese and peoples nearby" for Bernier encompassed the whole of Grand and Lesser Tartary—from Muscovy, the Euphrates, and Aleppo in western Asia to Turkestan and the Uzbeks in central Asia as far as China and the Ganges, plus the Far East and the Pacific Rim, including China itself, southeast Asia, and the islands of the Western Pacific—Japan, the Philippines, and many of the peoples of Indonesia. Granted, Leibniz was pulling his description from memory, having misplaced his notes. But Bernier did not use the term *Negres*. He did invent a race pertaining to the interior of Africa, and he did describe a male and female as "un noir & une noire"; and a few paragraphs later, in acknowledging the diversity internal to his four broad sets, Bernier did say that "the Blacks of the Cape of Good Hope seem to be of another species than those of the rest of Africa."[84] But nowhere did he use the term *Cafres* or *Hottentots*, whom Leibniz described as being separate.

Even more curious is Leibniz's specific memory of a discussion of the relative merits of different peoples within the species of (native) Americans. "In America again there was a marvelous difference between the *Galibis* or *Caribes*, for example, who have much merit and *esprit*, and those of Paraguay, who seem to be infants or schoolchildren their entire life."[85] For one thing, Bernier had pondered assigning the Americans their own species category (whence his uncertain "four or five Species or Races"), but he decided that the differences were not so great, and he folded the Americans in with the category that included Europeans, North Africans, Arabs, Persians, and Mughals. Secondly, Bernier's paragraph on the Americans was very short, just two sentences in five lines. He offered no suggestion that the divisions within the American subset were particularly profound and certainly nothing so specific as spirited Caribs and infantile Paraguayans. These omissions from Bernier beg the question, then: from where did Leibniz remember these details?[86]

The ease with which the term *race* was bandied about by Leibniz and Sparwenfeld, as well as by Bernier, would seem to suggest that there was little that was novel in its signification of general physical stature. Nothing in their usage suggested that it was a neologism; they offered no apology for using an obscure term, no definition of the term or explanation of how they were using it. Its content was black-boxed, and there is no indication that Leibniz and Sparwenfeld misunderstood each other on this count, although they did misunderstand each other on many others. Thus it was perfectly clear what Sparwenfeld meant when he referred to an unknown nation in central Asia as "another vagabond *race*" or when, a couple of sentences later, he described the Nordic peoples, without invoking the term *race*, in physical terms that closely resembled those employed by Bernier: "Tous les peuples qui habitent les rivages de la mer du Nord depuis le Nordcap jusques à la Chine, sont fait, de meme petis ramassés, les visages plats et comme les . . . [illegible] les yeux de cochons." (All the peoples who inhabit the coasts of the Northern Sea from Nordkapp to China are made, of the same short stocky, faces flat and with . . . pig eyes.)[87] Bernier had described his Asian race in these terms: "The inhabitants of all these regions are really white; but they have broad shoulders, the face flat, a blunted little nose, little pig eyes, long and deep-set, and three tufts of beard."[88]

Short and stocky or broad shouldered, flat faces, eyes like pigs'. Possibly Sparwenfeld had taken his description from Bernier. He had, after all, spent considerable time in France shortly after Bernier's essay was published. But Bernier, whose travel was limited to southern and western Asia, was no expert on northern and eastern Asia; he was drawing on other sources himself. What Bernier's description (or any similar racial classification) said was not news. Moreover, Sparwenfeld's sweeping characterization of the peoples of northern and central East Asia amounted to a rejection of physical characteristics as a means of classification. Racial classification was far too blunt a tool for Leibniz's purposes. How could it be otherwise, when Bernier had identified only four species (he dropped the term *race* after the first few lines and used *espece* instead) over the whole of the globe, and these were not even neatly sequestered but overlapped in several geographical regions.

Language Still the Best Means of Classification

On the other hand, Leibniz was not making much progress through languages either. Sparwenfeld tried to be helpful when he explained that the Kalmyks, Mongols, and Uzbeks all spoke "the ancient Turkish language, or *Tatare* which is the mother of modern Turkish."[89] But again, this was such a broad classifi-

cation that it was of little use to Leibniz.[90] Sparwenfeld acknowledged as much. That unknown "vagabond race" was a completely separate set, different in both language and religion from the Kalmyks, Mongols, and Uzbeks. They were Tibetan Buddhists—although that term had not yet been invented. Sparwenfeld described them as adherents of "the lesser Lamas, who are dependents of the Grand Lama." Neither Sparwenfeld nor Leibniz was yet aware that the Mongols themselves, only about a century earlier, had been instrumental in establishing the Dalai Lama as superior to the hundreds of independent lamas who guided the spiritual lives of so many nations inhabiting the mountains and steppes of central and eastern Asia. "I can't send you an exact account," wrote Sparwenfeld, "because few persons have been there, and those who have discussed them are usually merchants, ignorant, and who don't think."[91]

Sparwenfeld had been hinting to Leibniz for some time that his expectation of receiving language samples—word lists, Lord's Prayers—was not realistic. Conceptually it should have been easy. Any merchant would have to possess a smattering of words in the languages of those with whom he traded. Any Christian would know the Lord's Prayer. At most one would have to sit down with a native speaker over tea and puzzle out the formulae of the prayer. This would require a commitment of, what, fifteen minutes? Maybe an hour? But Leibniz had it all wrong, Sparwenfeld believed. When merchants traveled, they did not make a grand tour, as Jean Chardin (1643–1713) had through the Caucasus. Any given merchant went to only one particular destination, and he traveled not for learning but for profit. Europeans had no basis for comprehending the languages of Tartary; the Tartars (and others) were not so accommodating of European curiosity. Besides, the mere ability to speak one's mother tongue did not imply that the speaker possessed any rational comprehension of its structure. "They comprehend something, but for them to treat at the source, it requires [something] natural, [something of] Genius and of skill, and of time for leisure."[92] Sparwenfeld laughed at the absurdity of Leibniz's linguistic dreams. In order to accomplish what Leibniz wanted, he joked, "it would have to be an Armenian, raised at Isfahan, educated at Constantinople, and married to a Georgian, traveled in Muscovy and the rest, to have the knowledge of a European who came out of the Academy at Wittenberg or Leipzig, and to have been two years in your school, in order to reconcile and know the force and idiosyncrasy of these languages."[93]

But Leibniz wasn't buying it. He knew the data existed. The problem was, how to get hold of it? Sparwenfeld himself was thoroughly acquainted with

the frustration of finding a credible reference to a document he needed but then failing to turn up the document despite extensive searching. In 1604 Johan Skytte (1577–1645) had mentioned a law code from the Ostrogothic kingdom of Italy that was supposedly archived at Perugia. Sparwenfeld had apparently also received advice about it from Jacob van Oudenhoven and Giulio Belli, as well as from Giovanni Giusto Ciampini, whom Leibniz had met and with whom he carried on a correspondence. But a thorough search of every box in the Perugia archive (which Sparwenfeld complained was open only one time that year) failed to turn it up.[94]

More than once Leibniz misunderstood the vagueness of Sparwenfeld's letters in French. In discussing the very early runelike inscriptions in Spain that Lastanosa had catalogued, Sparwenfeld had said something about a fabled Odin, leader of a Gothic colony that emigrated from the Black Sea homeland of the Getes and by way of the old Iberia of Georgia to the new Iberia of Spain. When Sparwenfeld said "letters prior to the time of the Romans," Leibniz thought he was referring to a commerce of letters between the Gothic colony in western Europe and their homeland on the Black Sea. "I imagine that this Greek Manuscript . . . must be one of the more considerable discoveries of your voyage," Leibniz wrote.[95] In fact Sparwenfeld had meant *lettres* as in script, not correspondence. He did offer, however, that "the letters [meaning "correspondence" this time] of the Goths of Ponto to those in Spain were among the Greek manuscripts in Escorial (I can't find my notebooks) but no one can find the title after the fire." Part of the Escorial had burned in 1671, and Sparwenfeld could not locate his notes. Leibniz dropped that line of inquiry. When the Stockholm palace caught fire in 1697, Sparwenfeld's notebooks were destroyed.

In the late spring of 1697, having completed and printed *Novissima Sinica* and having just learned about the Stockholm palace fire, Leibniz undertook a series of increasingly desperate measures to win the far-flung linguistic knowledge that he knew must be out there.

Fabled Manuscripts

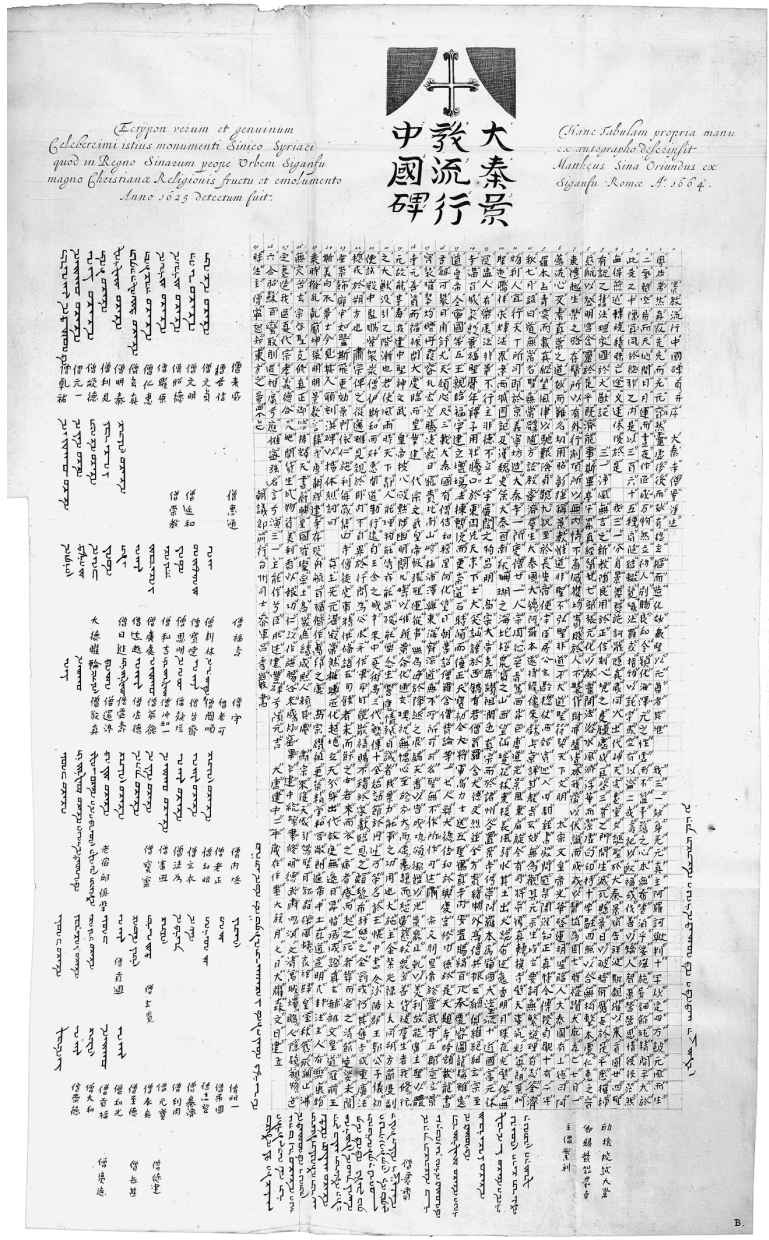
D'Herbelot's Tartaric Itinerary (Spring–Fall 1697)

In 1625, in the city of Xi'an, the capital city of the kingdom of Shaanxi in the north-central part of the empire of China, a trench was dug for the foundation of a wall. While digging, the laborers uncovered a stone tablet inscribed with Chinese characters. The tablet was about ten palms high, five palms wide, and about a palm thick (ca. $9' \times 3\frac{1}{2}' \times 5''$). The top was cut in a triangular

shape, and at the peak it bore an ornamented cross. The cross appeared to some to resemble a cross whose arms terminated in lilies, similar to one depicted on the tomb of the Apostle Thomas at Mylapore, on the Tranquebar Coast of India. To others, it resembled stylized crosses worn by the Knights of St. John of Jerusalem or perhaps the Maltese cross. Under the cross was a title in large Chinese characters, and below that a narrative inscription in thirty columns of Chinese characters. On the left side were columns of writing in a script unknown to the Chinese. The local governor put the monument, which was clearly very old, on public display, inside a small shrine built to protect it from the elements. Its fame spread far and wide. A mandarin convert to Christianity who had taken the name Leo published a description of the tablet, which piqued the interest of the Jesuits at Beijing.

In 1628 a Christian church was built at Xi'an, and a Portuguese Jesuit named Alvarez Samedo joined a small detachment of priests to dedicate the church and oversee its missions in a major city of north-central China some eleven hundred kilometers from Beijing. In his leisure, Samedo read and reread the inscription. It named bishops and priests from long before. The inscription in the left margin looked Semitic in that if the tablet were rotated ninety degrees clockwise, neat lines of text read from right to left. But Samedo recognized them as neither Hebrew nor Greek. A Chinese translation appeared beside (or under, depending on the tablet's orientation) each line of the unknown text. A few years later, Samedo traveled to Europe in the capacity of Jesuit procurator. On the voyage he stopped at the Portuguese port on the Malabar Coast of India (probably Goa), where he discussed the tablet with a Jesuit colleague, Anthony Fernandez, who was expert in the Aramaic language from the Apostolic period. Fernandez identified the foreign characters as Syriac. Samedo sent word back to China that the language was Syriac, but no one there knew the language. So a transcription of the tablet was sent from Xi'an to Rome, but so extraordinary was this combination of inscriptions that several pages of the transcription went missing. At Rome, Athanasius Kircher translated what he could find of the remaining pages for his *Prodromus Coptus* (printed in 1636).

Kircher eventually got hold of a complete copy of the transcription, and in 1635 Father Michael Boim, together with Don Chin Andrea, a Chinese nobleman and Christian who was a native speaker, went through the complete transcript with Kircher, correcting errors in the Chinese and translating it very literally. Chaldean priests had subscribed the monument in the Estrangela alphabet of the Syriac language. From the transcription on paper, Kircher


大秦景教流行中國碑
Exemplum vetustissimi istius monumenti Sinico Syriaci quod in Regno Sinarum prope Urbem Siganfu magno Christianæ Religionis fructu et emolumento Anno 1625 detectum fuit.
Hanc Tabulam propria manu ex autographo descripsit Matthæus Sina Orundus ex Siganfu Romæ A. 1664.

Transcription of the stele discovered in 1625 at Xi'an, in Shaanxi Province, China, at the eastern end of the Silk Road, as published in Athanasius Kircher's *China illustrata* (1667). Note the cross at the top, the thirty columns of Chinese text, and (*left*) Chaldean subscriptions in the Estrangela alphabet of the Syriac language accompanied by Chinese translations. (Max Planck Institute for the History of Science, Berlin.)

supervised the engraving of a stone replica that he put on display at the Jesuit museum at Rome.[96] Here, claimed Kircher, was proof positive that "modern Catholic doctrine was preached a thousand years ago in China on the other side of the world."[97] Kircher trumpeted the Jesuits' achievement of gaining entrance to the usually closed Middle Kingdom. There the Society of Jesus rekindled a spark of Christianity that had once burned brightly but over many centuries had flamed out. Jesuit missionaries actively encouraged Chinese Christians to seek them out and to test them to verify that the Jesuits were actually teaching a doctrine that had been known to their ancestors a thousand years earlier. Publishing his work at Calvinist Amsterdam, Kircher did not have to tell Protestants that he invited them to do the same.

European scholars had been conditioned to read Jesuit claims with skepticism. Some dismissed the supposed inscription as yet another papist forgery. The text described the basics of Christian theology, including *creatio ex nihilo*, the divine essence in three persons of one substance, the original sin of Adam, and the virgin birth of the Messiah, "one of the Divine persons of the most holy Trinity," who "gave his life that death might be destroyed."[98] Bearded priests with tonsured heads renounced all distinction of ranks and the use of slaves in favor of an egalitarian society in which all things were held in common. Names of known persons enabled the beginning of Christianity in China to be dated to AD 636, when a royal mandate by King Taí cùm veu huamti permitted a holy man from Judea (Tancin) named Olo puen to preach the imported doctrine. And the monument recounted the spread of Christianity in China down to the year AD 782, when the monument was erected. Even better, it included various chronological puzzles, such as a reference in Syriac to "In the year 1092 according to the Greeks," which turned out to be dated from the reign of Alexander the Great.[99]

None of this was particularly new. *China illustrata* had been published twenty-five years earlier, and Leibniz was not especially interested in Chinese curiosities. But what interested him was this: while reading Tentzel's *Monatliche Unterredungen*, he had found a discussion of two works written by Philippe Couplet while Couplet was in Europe during the 1680s. In discussing the antiquity of Chinese Christianity, Couplet mentioned that Melchisédech Thévenot and Eusèbe Renaudot had told him about an Arabic manuscript that confirmed that Christian evangelists preached the Gospel in China at about the same time that the Xi'an monument was erected. Just because the manuscript was Arabic, that did not mean that the language of the text was necessarily Arabic. Just as many languages can be written in the Latin

alphabet, so can many languages be written in the Arabic alphabet. Leibniz suspected that coming from that part of the world, the manuscript must have been in a Tartaric language. He wanted a sample of that language so that he might compare it with others. In the fall of 1692 Leibniz wrote to Paul Pellisson at the Académie française asking him to get the title and precise languages of this Arabic manuscript. Thévenot, who was both custodian of the royal library and Couplet's informant, as well as one of the seventeenth-century's foremost authorities on Oriental languages, would be the person to ask.[100]

Leibniz had just received a letter from Thévenot written in August 1692, so it must have come as a shock when Pellisson reported in November that Thévenot had died. Leibniz hoped the Royal Academy of Sciences would collect his papers. Be that as it may, perhaps Pellisson could get the title and exact languages of the manuscript from Renaudot or from the librarian Nicolas Clément.[101] But by February of 1693 Pellisson had died too.

Later in 1693 Leibniz tried again, this time requesting assistance from Daniel Larroque at Paris. A Huguenot who had fled France during *la réfuge* in 1685, Larroque had moved first to England; then to Holland, where he collaborated briefly with Pierre Bayle on *Nouvelles de la République des Lettres*; then to Hanover as secretary of an English envoy. Leibniz had met him in Hanover. In 1690 Larroque had been enticed back to France by a pension and an intellectual life among men of letters. This was on the condition of converting to Catholicism, which he did. By 1694 he would find himself imprisoned on suspicion of penning a satirical libel offensive to the monarchy. There he would sit out the remainder of the century. Fortunately, Leibniz managed to exchange letters with him in 1693, before disaster struck. To Larroque, Leibniz mentioned Couplet's attempt to corroborate Kircher's inscription through "a passage by a Persian or Arab." Leibniz hinted that Eusèbe Renaudot could clarify which "passage" Renaudot and Thévenot had described to Couplet.[102]

Larroque did not have a high opinion of Renaudot, "who is considered (I don't know why) to be versed in this genre of Science [Oriental languages] which he possesses very mediocrely." Renaudot only knew what he had been told by Barthélemy d'Herbelot. D'Herbelot, by contrast, was "the most learned man of Europe in the languages of the Levant," so Larroque sought him out and asked him about the manuscript. Larroque explained that when d'Herbelot had been at Florence in the 1660s working in the circle of Grand Duke Ferdinand II de' Medici, the grand duke requested that he translate this manuscript. It was composed in Arabic characters, but the "language was almost

entirely Tartaric." It was a travel report describing a voyage from Samarkand to China by way of Grand Tartary. D'Herbelot told Larroque that the Muslim traveler described Kircher's monument at Xi'an, as well as another monument that depicted the twelve apostles with the instruments of their martyrdoms, as in early Christian style. The anonymous traveler had been led to believe that the instruments referred to the apostles' trades, and he described the tools as such rather than as devices of suffering and glory. Unfortunately, d'Herbelot had not kept a copy of his translation. He imagined that it must have been shelved in Florence next to the original. He added that the late Melchisédech Thévenot had had another version of the travel report in the Persian language.[103]

A Tartaric itinerary from Samarkand to China translated by d'Herbelot and shelved at Florence! Immediately Leibniz wrote to Magliabechi, the ducal librarian at Florence, giving him the specifications of the Arabic-Tartaric travel report and d'Herbelot's translation.[104] He gave Magliabechi a few months, but hearing nothing, he inquired again in April 1694.[105] But in his next few letters, although Magliabechi supplied Leibniz with many interesting things, he did not mention the d'Herbelot translation. Leibniz figured he couldn't find it, so he dropped the question. But a few years later he took up the quest for the Arabic-Tartaric travel report again.

In 1697, during a discussion with Sparwenfeld about d'Herbelot's sources for his life's work, *Bibliotheque orientale*, Leibniz mentioned the Tartaric travel report. He told Sparwenfeld that he had written to Magliabechi, whom he described as a friend, adding, "But he is a bit odd, and I believe he would rather say that this translation no longer exists than admit that he does not know about it."[106]

Sparwenfeld knew Magliabechi as well as Leibniz did. Shortly after Leibniz had passed through Florence during his grand tour of Italy, Sparwenfeld also made several short trips to Florence. Magliabechi had spoken highly of Leibniz, Sparwenfeld commented. But he agreed with Leibniz that the smoky old librarian was an eccentric oddball. "It's worth writing again to Magliabechi," Sparwenfeld suggested, "to tell him that this is an item of interest for both of us." He suggested also writing to a Swedish gentleman named Magnus Gabriel Block, who was close to the Florentine crown prince. "He will research it infallibly, provided he has not died."[107]

The Block angle was a good idea, Leibniz agreed. "Mr. Magliabechi is rather deaf toward things that are not to his taste." He suggested that Sparwenfeld write a few lines to Block and forward that note to Leibniz with his next

letter. Leibniz would then relay it down to Florence, being careful to route the letter so that it did not pass through Magliabechi's hands. Magliabechi did not like people to look for what he himself could not find. "One is obliged to deal thus with our good Magliabechi in certain situations."[108]

In vindication of Magliabechi, in fact d'Herbelot's fabled translation of the Arabic-Tartaric travel report has never been found. In a catalog of Oriental books on medicine, astronomy, history, and philosophy in the Laurentian Library at Florence there is a description of a voyage made to China by an ambassador of Shah Roch, a son of Tamerlane's, in the year 1420. The cataloger commented that "this voyage deserves to be translated in full, because it includes something curious about the Knowledge of a country often mentioned and equally unknown to our Author."[109] A 1725 bibliographer printed the seventeenth-century catalog, ascribing it to Magliabechi. It would seem strange if Magliabechi had commented on the manuscript and did not pass the citation on to Leibniz. But a later editor of Magliabechi's papers explained that the cataloger was not Magliabechi but d'Herbelot. Nor does the catalog entry match Larroque's description very well. But because Larroque's description was so specific, and because he had had it directly from d'Herbelot himself within the previous two weeks, Leibniz could not believe this was an idle rumor.

Petrarch's Cumanic Dictionary (Summer 1697)

During his travels in Italy in the winter of 1690, Leibniz perused a catalog of manuscripts that were housed in the Republic of Venice. He noticed one that had once belonged to Petrarch, a little dictionary of words in Cuman, Persian, and Latin. He remembered that the catalog entry had included the first entries from the dictionary. Early in 1697 he intended to send those words to Sparwenfeld, whom Leibniz hoped could tell him which language the Cuman words most resembled. "But I was not able to find it again in the chaos of my papers," he lamented.[110]

Leibniz knew that the Cumans had once occupied Taurica, the Crimean Peninsula, and the region northeast of there along the Black Sea in what is now Ukraine. During the time of Frederick II, that is, the first half of the thirteenth century, the Cumans had been chased out of that homeland by the Tartars and taken refuge far to the west near Hungary. But here Leibniz lost track of them. Was there some remnant of the Cumans still living in eastern Europe, possibly Wallachia or Moldavia? Had some of them migrated farther west than that? "I don't even know whether they are the same as the

Tartars of Lithuania. For it appears that they are different from those of Crimea, although they are Muslims like them."[111]

When he found his notes several months later, Leibniz was able to show Sparwenfeld the first entry in Petrarch's Cumanic manuscript dictionary, the Latin term *audio*, meaning "I hear":

Audio	*Mesnoem*	*Esiturmen*
Audis	*Mesnoy*	*Esitursen*
Audit	*Mesnoet*	*Esitir*[112]

This was the barest of evidence—the singular persons of a single Latin verb. Yet on this basis Leibniz hoped to establish the origin and kinship of the Cumanic nation. The problem was, Leibniz could not tell which column represented Persian and which Cuman. "It seems to me that today the Persian doesn't say either *Mesnoem* or *Esiturmen* for *Audio*." He suspected that *Mesnoem* must have been the Persian word and *Esiturmen* the Cuman "because I find that among the Turks *Escitmek* is *audire*."[113] Already he speculated that there was some connection between Cuman and Turkish. He hoped the words in this list would confirm that speculation.[114]

Keen to balance his account with Sparwenfeld, Leibniz wrote to Venice offering payment for a copy of Petrarch's book. "The little book would be small," he promised, "and it was written in Latin characters," so making a copy would not be too onerous a task.[115] He pretended that the copy was for Sparwenfeld, whom he described as a great traveler and researcher of languages. But what would have been a nice curiosity for Sparwenfeld was for Leibniz badly needed data.

Leibniz had attempted to acquire a copy of Petrarch's Cumanic dictionary a couple of years earlier, in January 1695, when he composed the formal "Desiderata" memoire requesting Lord's Prayers and word lists that he sent to Bodo von Oberg and J. J. J. Chuno. He had written to an antiquarian and numismatist at Venice named Niccolò Bon, but he did not know whether the manuscript codex was housed at the public library, the library of St. George Maior, or somewhere else.[116] Bon had been unable to find it.

By April 1697 Leibniz had recovered his missing notes from Venice.[117] At Wolfenbüttel that month he looked up the citation in a 1650 biography of Petrarch by G. F. Tomasini, who had also catalogued all known manuscripts in public and private libraries in Venice. Petrarch's manuscript was a 1303 copy of a lexicon that apparently dated from ca. 1200, when the Cumans were still

living on the Black Sea. According to Tomasini, Petrarch had left the manuscript book, along with more than a dozen others, to the Republic of Venice upon his death in 1374. But the Petrarch collection had not been housed in the library of the Republic of Venice. Instead it had been placed somewhere in the Church of San Marco. Tomasini had described them as being in a secret archive at the top of the church, somewhere near the copper horses that looked out on the Piazza San Marco and near the cell that had been occupied centuries earlier by the visionary Joachim of Fiore.[118] Only the procurators of San Marco had access to that secret archive. Leibniz turned to his Venetian network to initiate a search for the Cumanic dictionary.

Northern German princes decorated their courts with Italian poets and composers, who brought the flourishing Baroque style of Catholic southern Europe to the cold North of Protestantism. Agostino Steffani composed original operas for the Hanoverian court in the 1690s. Steffani's librettist, who wrote the poems that were set to music in the opera, was Bartolomeo Ortensio Mauro. Veronese by birth, Paduan by education, Mauro had come north in the early 1660s. He had been inspired to write his first poem during a visit to the silver mines in the Harz Mountains. More than just a local courtier, Mauro wrote for Italian composers across northern Germany and even in Italy. He wrote in French and Latin as well, works sufficiently sublime that some thirty of his Latin poems were published in two posthumous editions in the eighteenth century. Hanover had a small theater for French-style comedies, but the Mauro-Steffani productions quickly outgrew this. While Leibniz was away on his grand tour, Ernst August commissioned a very large, thirteen-hundred-seat theater to accommodate Italian operas.[119] In order to keep Mauro happy, the Hanoverians had accorded him ever more responsibility at court, since with responsibilities came stipends. Thus, in addition to poet and librettist, Mauro became a kind of diplomatic liaison between Hanover and Italy. When Leibniz sought a book hunter to find his Petrarch codex, he turned to Mauro for help.

Mauro was well acquainted with his colleague's charge to write the history of the House of Braunschweig-Lüneburg, their common employer. As Leibniz endeavored to piece together the medieval links between the Houses of Guelf and Este, he needed a number of documents that he had not acquired during his grand tour. Already in the spring of 1697 Mauro had found a minor nobleman named Eustachio Mocenigo who was willing to rummage through dusty archives for the greater glory of the North. Leibniz was looking for the foundation charter of the monastery of Santa Maria delle Carceri,

which was located near the ancestral estate of the Este. He supposed that the monastery must have been donated by the Este, and he hoped that the foundation charter might reveal a northern German connection as well. Since Mocenigo, the book hunter, was already looking for one item required for *Origines Guelfice*, Leibniz asked Mauro to ask him to find the Petrarch codex in Venice as well.

Leibniz explained to Mauro that he did not seek the Petrarch codex for himself but for a certain "great traveler and great researcher of languages." That is, Leibniz hoped for a copy to send to Sparwenfeld. While it would have been perfectly reasonable for Leibniz to desire the Cumanic vocabulary for his own purposes, his appeal to Sparwenfeld indicates how deeply in Sparwenfeld's debt he felt himself to be. "He has communicated to us for the History of the House some very curious pieces that he has found in his travels," Leibniz explained. Not only was the piece extremely rare—indeed unique, so far as Leibniz could have known—but it preserved a lost language from a "Scythic people." Leibniz urged Mauro to impress upon Mocenigo the significance of his request to the entire Hanoverian household, even asking Mauro himself to express to Mocenigo "some testimonials of the part that you take in it."[120]

But Mocenigo was not much of a self-starter, or at least not from Leibniz's point of view. Although he relatively quickly found a book of charters—and apparently several other books as well—from the Carceri monastery, he didn't know what to do with them. Around the beginning of May 1697 Mocenigo wrote to Mauro for further instructions. "Unless Mr. Leibniz specifies clearly what is desired, I am not able to have it copied, since in this book are found all the Princes of Este who have made donations to this Monastery: there are whole manuscript books, and in Gothic letters. I will find therefore an intelligent person, able to understand them: but it is necessary that he specifies the names of the Princes and the year."[121]

Leibniz was running out of patience. There he was in Hanover, a mountain range plus an empire separating him from the sources he needed, working through an intermediary (Mauro) to direct a research assistant over whom he had no control. Did Mocenigo actually think that Leibniz knew precisely which manuscript charters were in the books? That he could specify precisely the princes of Este whose documents he needed in order to confirm the existence of those very princes? "For how could I divine them?" he exclaimed. "In order to learn what knowledge these books might contain, it would be necessary to have the list of *the specification of the diplomas* or

Rogiti, that they contain," he said, underscoring his own words in exasperation. That is to say, he required a table of contents. Usually medieval codices offered a rubric—in red ink even—at the head of each document. Could Mocenigo not take the initiative to list those rubrics and "indicate *the Prince or Lord who issued the Diploma, and on what subject, and in what time and place*"?[122]

Clearly, Leibniz was going to need better help if he was to acquire what he needed not only for the second preliminary dissertation but for *Origines Guelficae* as a whole. In fact, instead of relying on the good will of scholars, he might actually have to pay someone. He made an appeal to the Hanoverian council and came away with a blank check signed by His Electoral Highness himself, Ernst August.[123]

Leibniz drafted another memorandum for his colleague Mauro asking him to kindly remind Mocenigo of Leibniz's ability to pay for services. Would he express to Mocenigo the significance of the Cumanic vocabulary for the world of learning, as well as the basic politeness of returning the favor to Sparwenfeld, who had sent so many curiosities that could be used to promote the glory of the house? The little dictionary was small. It was composed in Latin characters (i.e., nothing so difficult as the German paleography that Italians referred to as "Gothic"). To make a copy should not be so very difficult. Payment was in the offing for services rendered. Granted, it would be a challenge to locate the little dictionary. It would probably be another challenge to gain permission to access the book. But surely there was a scholar or curious person who would relish the challenge and the opportunity to see firsthand a remnant of the library of that most famous of Renaissance humanists, Petrarch.[124]

Leibniz doubted Mocenigo was up to the challenge. He rekindled a correspondence with a philosopher and Franciscan friar whom he had met in Venice in 1690, Michel Angelo Fardella. A mathematician and doctor of theology, Fardella had traveled to Paris years earlier to study Cartesian philosophy. After Leibniz's return from his grand tour, he and Fardella had struck up a lively correspondence on mathematical and philosophical topics. So prolific was this correspondence that the Akademie editors have sequestered the Fardella correspondence in series II, Philosophical Correspondence, as opposed to including it in the General Correspondence of series I, where most of the linguistic material is published. In 1693 Fardella had left the Franciscan order, taking a position in meteorology and astronomy at the University of Padua. In 1700 he was promoted to the chair in philosophy, a post he would hold for a decade before moving to Barcelona as court mathematician and

theologian to King Carlos III of Spain. In 1697, though, Fardella felt himself off balance. He could glimpse his bright future, but he had not yet achieved it. He had moved over to a position in philosophy, although not the well-paying chair in that faculty, and he was struggling for cash to set up a house worthy of a university professor. Thus, when Leibniz turned to him in May to open another angle in pursuit of the Petrarch codex, Fardella responded diligently and promptly.

There is no record of Leibniz writing to Fardella directly in May 1697, but somehow word came to him in sufficient detail that Fardella knew of Mocenigo's assignment to acquire the Este records at Carceri, as well as the Petrarch manuscript described by Tomasini. Fardella suggested that the Carceri records, at least, should be easy to get hold of. He had formed a close friendship with a certain *consultore di stato*, a lawyer or notary who spent most of his days in the archive. He could probably acquire the book of documents as a matter of course.[125] Little did Fardella know that now being bound up with the quest for Asiatic languages, the Carceri document would not come easily either.

Fardella made the Petrarch and Carceri projects his own. All that summer he wrote Leibniz weekly progress reports, nine in all, about the search for the manuscripts. When Fardella arrived in Venice in early June—he had apparently been at home in Padua when Leibniz reached him—he set a certain Giovanni Zanovello on the trail in addition to Mocenigo. Count Bertolli, the *consultore di stato* who worked in the archive, told Fardella that there was no attic at San Marco such as the one described by Tomasini where manuscripts would be kept. And contrary to the report Leibniz had read in Tomasini's biography of Petrarch, nor was there any such cell in the church that had formerly housed Joachim of Fiore. Instead Bertolli was certain that the Petrarch collection would be housed in the Segreta archive, where he worked, the only logical place to preserve such rare books.[126] Fardella resolved that he would not return to Padua until Leibniz's manuscripts had been found.[127]

And sure enough, following Eustachio Mocenigo's lead, the foundation charter of Santa Maria delle Carceri was located in Bertolli's Segreta. It took some digging to locate it, but there it was, dating from the year 1036 and issued by Henry, duke of Saxony, who within a few years would become Henry III, the Holy Roman emperor. Bertolli made some notes identifying other documents and charters that might be of use to Leibniz, which Fardella handed to the Hanoverian agent in Venice, Pandolfo Mendolino, who forwarded them on to Hanover. A complete transcription of the 1036 charter would be made

shortly, but Fardella wanted to assure Leibniz immediately that progress was being made.

The Petrarch codex, however, turned out not to be in the Segreta. Apparently in the church of San Marco there actually was a very small and narrow room—a closet, basically—near a cell that had in fact been occupied by the mystic Joachim of Fiore, just as Tomasini had reported. Bertolli learned this from one of the procurators of San Marco, a Venetian patrician named Giulio Giustiniani, who in his office as procurator had jurisdiction over Venice's rarest books and manuscripts.[128] Giustiniani was a connoisseur of such things, assembling in his own house one of Venice's finest collections of Renaissance paintings and ancient manuscripts. Fardella's access to Giustiniani was paved by Fardella's residing in the house of another of Venice's procurators, Sebastiano Foscarini, during his stay in that city.[129] And indeed, Tomasini had stated correctly in that single sentence where he described the location of the Petrarch collection that the little closet at the top of San Marco was under the jurisdiction of the procurators. Guistiniani told Fardella that the key to the closet was in the possession of a certain Signore Negri. It would take a few days to get the key.[130]

From Hanover, Leibniz followed the proceedings in Venice as Fardella reported them. Writing from Wolfenbüttel, Leibniz told Sparwenfeld that he thought the Cumanic dictionary must still be in San Marco where Tomasini had described it as being. He dropped the name of Giustiniani, whom Sparwenfeld might well have encountered during his travels to Venice. "Sometime when someone climbs up high in the Church of San Marco, he will look for my book," he said hopefully.[131]

Still, by the end of June Fardella remained unable to deliver a transcription of the Carceri foundation charter. In fact, at the beginning of 1690 the monastery of Santa Maria delle Carceri had been suppressed by the papacy and its possessions sold in order to finance the ongoing war against the Ottoman Empire. Leibniz himself had actually visited the monastery at the end of his grand tour, but not before it was sold, and he had not had time before his return to Hanover to obtain copies of everything he needed for the Guelf history. He knew this already in 1691, when he was sketching out the parameters of the project, and at that time he had turned to Fardella in a first attempt to obtain a copy of the genuine foundation charter. But in 1691, in the chaos of moving house, the monastery's deeds, titles, and charters had been transferred off-site and heaved into a Venetian archive where there was no hope

of finding anything specific. By 1697 order had been restored, and the books of deeds had been distributed to various private and public collections. Some were indeed still in the Segreta, as Bertolli had found, but others were in the possession of the Carminati family, who had purchased the monastery's assets from the papacy, and still others—the documents Mocenigo had located—were in the hands of a certain Signore Benvenuti.

Fardella issued a lament that was by now familiar to those seeking historical knowledge, whether those seeking knowledge of Asiatic places and languages, as Philippe Avril and Sparwenfeld were, or those seeking knowledge of medieval antiquities, as Leibniz was: "In this country [Baroque Venice!] people live in complete ignorance of the things of antiquity. There is no curiosity, and they think that they can just miraculously understand an ancient text. They swear that they know of no place in San Marco where the little library of Petrarch could be preserved," the only exceptions being the *procuratore* Giustiniani and the *consultore* Bertolli.[132] Fardella himself began to invoke divine intervention in the hope that the House of Hanover might perceive the diligence and devotion he was showing it even though a month's legwork had turned up nothing.

Meanwhile, Fardella was beginning to worry about his personal affairs. Although he seems to have been well enough funded for this increasingly extended stay in Venice, at home in Padua things were not going so well. He was still trying to establish a house worthy of his professorial dignity, but with the salary of only a junior professor. He confided to Leibniz—perhaps dropping hints of his desire for greater remuneration?—that Carlo Rinaldini was thinking of retiring from the first chair of philosophy at Padua; Fardella was angling for that appointment.[133]

Sunday morning, June 30, 1697, Professor Fardella, *procuratore di San Marco* Giustiniani, and *consultore di stato* Bertolli launched an assault on the highest reaches of the church of San Marco on the central piazza. The trio climbed an old and rickety staircase to the highest summit, and there, sure enough, they found a little room that might plausibly have been home to a medieval millennialist mystic. Opposite that room was an even smaller room behind a locked door. Giustiniani still had not obtained the key from the *anuario* who held it, so they broke down the door. Inside they found a closet jammed with writings and diplomas pertaining to the Republica Serenissima. Against one wall was a large armoire, and inside that armoire were Petrarch's manuscripts. They were in terrible condition—ragged, timeworn. Giustiniani

invited Fardella to look through all of them and to take his time. But the Cumanic dictionary was not there. Bertolli guessed that it must have been stolen.[134]

At least Bertolli had greater success with the Carceri charter. He had finally obtained a copy, a task more difficult than it appeared, given that the original was composed in "Gothic characters" that it took paleographical skill to decipher. Fardella trumpeted Bertolli's achievement in accomplishing a task that had defeated both Mocenigo and Zanovelli. He was quite certain that this was the document Leibniz was looking for, since no other document from the Carceri collection made mention of the dukes of Saxony.[135]

This was because there was no such person as Henry, duke of Saxony, who lived ca. AD 1036. Fardella was shocked and dismayed to learn, after Leibniz had received the copy of the Carceri charter, that the document he had delivered—"after so much sweat," as he put it—was a forgery.[136] Worse yet, Leibniz was already acquainted with the forged charter, and even worse than that, Leibniz had already told Fardella about it back in 1691. Although Leibniz had visited the vacant monastery in March 1690, it was at Venice that the monastery's procurator—one Giulio Giustiniani, who would become a procurator of San Marco by 1697—had let Leibniz see the 1036 charter.[137] Initially assuming it to be genuine, Leibniz had transcribed it himself, but almost immediately he had had misgivings about it.

It was true that the future Henry III, Holy Roman emperor, was alive in the year 1036. He would attain the imperial crown in 1039, but being a member of the Salian dynasty and son of the sitting emperor, Conrad, this Henry was not duke of Saxony. Nor were any other Saxon dukes ca. 1036 named Henry. Thus, there was a problem with the purported benefactor of the charter. A second problem appeared in the named recipient, Raimbald, Henry's son, identified as archdeacon of the great basilica of Saxony. There was no archdiocese of Saxony, because in the eleventh century there were in fact two archdioceses in Saxony, namely, Hamburg-Bremen and Magdeburg. Raimbald's title was "ridiculous and shows the ignorance of the monk who invented and fabricated this piece," Leibniz explained to Fardella. Third, later in the charter Henry was titled *dux Sansoniae* and *Raimbald majoris Ecclesiae Sansoniensis archidiaconum*. No self-respecting German had ever corrupted *dux Saxonicae* into *dux Sansoniensis*; "it was only the ignorant in Italy, and in recent times, who spoke thus."[138]

Fourth, if the fraudulent monk had known that Henry III was the son of Emperor Conrad, then he should have indicated in the charter that the donation was made to bless the souls of his ancestors—his father or mother, perhaps—as was common in eleventh-century charters. But apparently the monk had mistaken the genealogy of the emperor whose name he forged. "And so as not to pick out a number of other incongruous expressions from this piece, I will speak only of the conclusion, which gives clear proof of its falsehood," that is, the subscriptions, which were as false as the benefactor and recipient. "Magister Raimbald, the above-said archdeacon," set his hand to the diploma—except that Leibniz knew that the title *Magister* was of more recent invention and not in use in the eleventh century. "I, Arnulf of Sansoniensis, notary of Duke Welf," also signed it—a double absurdity both in the name Sansoniensis (clearly a forgery, as no one ever qualified his homeland with as vague a term as *Saxony*) and in the identification as a notary of Duke Welf: "in this time then, 1036, there was no Duke Velf or Guelfe in the world; they were all later."[139]

To one whose principal calling at court was neither metaphysics, ethics, mathematics, dynamics, nor even law but rather medieval history, this foundation charter from Santa Maria delle Carceri had all the marks of pious fraud. It bears recalling that Leibniz frequently corresponded with Daniel Papebroch, the Bollandist at Antwerp, who at that moment was at work on the *Acta Sanctorum* and not only applying but developing the most rigorous methods of textual analysis, for which seventeenth-century scholarship is famous. Leibniz had also corresponded with the Maurist Jean Mabillon, whose *De re diplomatica* codified the standards against which charters like Leibniz's were to be evaluated.[140] Thus, having exposed the charter as a forgery, Leibniz immediately turned to the conditions under which the forgery was drafted. Try as he might to cover his tracks, the fraudulent monk left a number of clues that led back to who he was, when he lived, and what he knew and did not know.

Already Leibniz had shown that the monk was Italian and of an age sufficiently removed from the foundation of the monastery that geographical names and honorific titles had come into use that were not of the time when the document was supposed to be. Moreover, the diploma was fabricated as a stand-in for the real foundation charter, which dated not from 1036 but from 1107. A century earlier, in 1579, that genuine foundation charter had still existed. In a history of the order of which the Carceri monastery had been a

member, Leibniz had seen a discussion of both the genuine charter and also this pseudo-1036 forgery. The genuine charter had been described with such specificity that the historian must have drawn it directly from the document itself or perhaps from a copy.[141] It was this genuine charter, given by Henry, duke of Lombardy, described as son of Guelf, that Leibniz wanted to see. Carceri was not his interest. Leibniz wanted the confirmation of the Guelf-Este genealogy in the generation after the marriage of Azzo II of Este and Cunigunde of Altdorf. He speculated that the "notary of Duke Welf" of Bavaria (Henry of Lombardy's father) might have been based on a real person. "But Duke Henry of Saxony is imaginary and has nothing to do with this region here." He suggested that the fraudulent monk had fabricated the Saxon title, thinking that it was more prestigious for the donation to have been given by a prince who was also emperor. "But not finding any Henry, Duke later made emperor in the true time of the donation, known to be the year 1107, they were forced to go further back and were deceived by certain fabulous Historians who believed that Henry III was not son but son-in-law of Conrad. So, piling fables upon fables, they forged this piece."[142]

When Leibniz had confided this analysis to Fardella in 1691, he had warned Fardella not to let on to Giustiniani that the charter was a forgery. He saw no point in losing Giustiniani's favor over it, and in any case exposing a five-hundred-year-old forgery from a suppressed monastery would serve no purpose. And indeed, not only did Fardella not inform Giustiniani but by the time he received Leibniz's analysis he had given up on finding the charter at all because of the chaos of the move. Perhaps he never read Leibniz's analysis closely, or perhaps he simply forgot. In any case, six years later, when Leibniz renewed his request for the genuine charter of 1107, Fardella misfired, neglected to warn Bertolli about the deception, and sent Leibniz the wrong document.

Thus chagrined, Fardella threw himself back into action. It was now the middle of July, and still he had produced nothing of value for the Hanoverians. Repeatedly in his letters he emphasized that he considered it a privilege to be able to serve "that Most Serene House." He sent offprints of his philosophical works to Leibniz, and Leibniz reciprocated in kind with essays of his own. The problem was that Bertolli had thoroughly investigated the Segreta, and he had found no reference to any Henry of Bavaria who reigned ca. 1100. On the other hand, neither did the monastery's registry of privileges and confirmations contain any reference to a Henry of Saxony from 1036. Thus stumped, Fardella did not know what to do; Bertolli, the *consultore di stato*,

and Giovanni Zanovelli, the agent for Celle in Venice, shared Fardella's distress.[143]

Forced to cast his net more widely, Fardella began to inquire about medieval manuscripts written in Gothic characters that were in private collections. One such "Gothic" manuscript turned out to be located in the very house he was staying in at Venice. This was in the possession of Sebastiano Foscarini, procurator of San Marco and colleague of Giulio Giustiniani. Foscarini's manuscript pertained mostly to the Republic of Venice, although it also included documents from the House of Este during the period when they were patrons of Ferrara.[144] Bertolli made a second discovery when he turned up an index of documents from the House of Este. That index was housed in the Palazzo Pisani-Moretta in Venice, and Fardella asked Leibniz to indicate what kinds of material he was interested in so that copies could be made. Finally and most promising, Fardella learned that much of the Carceri archive was not in Bertolli's Segreta at all but in the hands of the family that had purchased the monastery in 1690. He enlisted a Venetian senator to intercede on his behalf to borrow it and also a professional *scriptore* who knew the medieval "Gothic" script to decipher and copy it. He very much hoped that the 1107 donation from Henry of Bavaria was in that very large manuscript.

Copies of these documents were made for Leibniz during the month of August. In the meantime, still looking for the Cumanic dictionary, Fardella found an index that contained a reference to it. Together with Bertolli, he brought it to the Venice public library, and although they searched, they could not find it. He would look again through the Petrarch manuscripts in San Marco, but there was little hope of finding it.[145] Fardella took a week to travel somewhere with his Venetian host, the procurator Foscarini. When he returned, he assembled a package of the copied medieval documents plus some essays of his own and handed them to Mocenigo, who arranged to have them sent to Hanover.[146]

A month later Leibniz wrote directly to Fardella thanking him for his efforts. The manuscripts were truly useful to him, most especially one that began "ego Fulco Marchio filius domini Azonis," thus confirming for him a genealogical link in the House of Este around the time of Welf. As for the index Bertolli had discovered in the Palazzo Pisani-Moretta, Leibniz said that he could use anything before ca. 1300. However, he was now deeply in Bertolli's debt, and he asked Fardella to express his gratitude and even to augment his thanks with words of Fardella's own. Leibniz also congratulated Fardella on the scholarship in the essays he had sent that summer, which were

"written with manly eloquence and containing some solid thoughts." Given his learning in mathematics and theology, Leibniz suggested he might be a candidate for the mission in China.[147]

But Fardella was content to remain in Italy, at least for the time being. Rinaldini had taken a leave of absence from the chair in philosophy at Padua, and with his assistance Fardella was promoted to visiting professor. In three years Fardella would hold the chair in his own right. But of Petrarch's *Alphabetum Persicum, Comanicum et Latinum*, there is no further word. Leibniz had exhausted his supply of good will and decided not to press the matter further. That manuscript codex from the year 1303 does have a modern shelfmark in Venice's Bibliotheca Marciana. Julius Klaproth printed it in 1828. A Danish edition of the work was published in 1936.[148] By what route it arrived at that library I do not know.

The Grand Embassy of Peter the Great

(Summer–Fall 1697)

Novissima Sinica

By the end of March 1697 Leibniz had in hand all six texts for his collection *Novissima Sinica*, the latest news from China. For weeks that winter he worked on a lengthy but delicately worded preface in Latin that hailed the Jesuit achievement in the mission field but also hinted that Protestants might consider joining them in the great harvest of souls. Mediating the antipodes of the West and the Far East, the Muscovite Empire offered the swiftest and most secure route across Eurasia.[1] In April 1697 that work came off the press, and Leibniz sent copies of it to his correspondents in Europe—Jakob Wilhelm Imhof at Nürnberg,[2] Hiob Ludolf at Frankfurt,[3] the Jesuit Johannes Clerff at Münster, who had provided two of the texts that Leibniz published.[4] Leibniz directed a package to Etienne Chauvin in Berlin, the ranking pastor of the Huguenot *réfuge* in that city, who had recently founded the *Nouveau Journal des Sçavans*.[5] He promised copies for Ezechiel Spanheim as well.[6] Under separate cover he sent a second package to Berlin containing several copies of the little book for J. J. J. Chuno, without whose assistance the idea of *Novissima Sinica,* to say nothing of the texts themselves, would never have occurred to Leibniz. Leibniz earmarked one copy specifically for Johann Reyer at Königsberg in gratitude for his role as Chuno's eastern contact.

Privately Leibniz expressed to Chuno what he could say only indirectly in the preface to *Novissima Sinica*, that he hoped Protestants might join with the Catholics in preaching the Christian religion in China. "My purpose would be to animate the Protestants to take part in this great harvest of souls, to carry into those lands there Christianity as it is in its purity, and not to let the others take all the glory and all the merit for so important a mission."[7] To make such a statement in print would certainly have alienated the Jesuit missionaries, whose favor he had acquired only through years of effort and diplomacy. Leibniz was much impressed by the imperial decree of the Kangxi emperor

permitting missionaries to preach the Gospel freely throughout that enormous realm (which must rival the Roman Empire at its greatest extent, Leibniz marveled). Leibniz had positioned José Soares's Latin report of that imperial decree front and center in his *Novissima Sinica*, and he pointed it out to those whom he sent copies of his book. The emperor of China was chiefly interested in the scientific knowledge that the European missionaries brought, and Leibniz figured that the Protestants at least equaled and possibly surpassed the Catholics in the sciences. By the end of the seventeenth century the Protestant East Indies companies were the masters of navigation in the Far East. Maybe the Muscovites would also open the land route through their territory, and to the Jesuits as well as any Protestants. But he knew this was wishful thinking. "I might as well sing fables to the deaf," he sighed, quoting an ancient turn of phrase in Latin.[8]

Chuno at Königsberg

Chuno replied from Königsberg in the eastern Baltic. His location was not entirely surprising, as it had been known for some time that the electoral court of Brandenburg was planning a mass excursion to Königsberg for the diet that would select a successor to the late king Jan III Sobieski of Poland, who had died in June 1696. Leibniz had offered him wishes for a good trip should Chuno be summoned, as indeed he was.[9] What was surprising was this: upon arriving at the diet, Chuno learned that the delegation sent by the court of Moscow was not a delegation at all—the czar had left his country and traveled to Königsberg himself!

Chuno recalled an early letter from Leibniz in which he had written that the young czar Peter—not yet the Great—had a curious and inquisitive mind and was strongly inclined to "debarbarize" his country.[10] Chuno doubted that even Leibniz could have foreseen that the czar might himself leave the country in order to acquire the expertise needed to carry out that civilizing project. But there he was at the diet. He brought with him several of the sons of the ranking Muscovite boyars, ostensibly so that they might see foreign lands but also to ensure the continued loyalty of the boyars while the czar was out of the country.

Supposedly Czar Peter was traveling incognito—he had disguised himself as a regular officer who supposedly reported to the prince of Circassia—but his presence quickly became Europe's worst-kept secret. Chuno himself had spotted the czar at a dinner. He described for Leibniz the czar's brown hair cut short, beard somewhat lighter than his hair, and the physiognomy of his

face. He knew the czar spoke a bit of Dutch, which the czar referred to as "the Calvinist language." He knew that the czar was an aficionado of shipbuilding and that after the Polish election he and the prince of Circassia would part ways, the Circassian heading to Venice in order to learn the art of commanding galleys on the Black Sea against the Turks. Peter himself would make for Holland to oversee the construction of a fleet of shallow-water warships that Circassia and other captains would deploy. So interested in naval and maritime matters was Peter that he traveled with his three-hundred-person embassy as far as Courland (in Latvia) but then detached himself and sailed a short stretch from Libau (Liepaja) to Pillau (Baltiysk). He would have arrived sooner had it not been for contrary winds. Meanwhile, the main part of the horse-drawn embassy slogged over land for another eight days. Chuno reported that of the three official ambassadors the head was François Lefort, a Genevan elevated to the rank of general and one of Peter's favorites. The prince, the disguise, the intended mission, and the itinerary were all known within days even to low-ranking secretaries like Chuno, who broadcast the news to minor courtiers like Leibniz. "So there it is, Sir, news worthy of your curiosity and that will no doubt please you," Chuno concluded.[11]

The enthroned czar making a grand tour and learning languages, Leibniz mused. Kochansky had reported that the emperor of China was also learning European languages, but Leibniz was not sure whether it was *la langue Calviniste* or *la Papiste*. The whole idea struck him as farcical, as if an acting out of the Italianesque blackface comedy *Emperor Harlequin Goes to the Moon*.[12] In fact the rumor that the czar was traveling incognito was not news to Leibniz. He had already seen a report from the Hanoverian resident at the Brandenburg court, who had also traveled to Königsberg, that the Brandenburg elector and the Muscovite czar had made a game of sneaking incognito into each other's courts.[13]

All joking aside, once Leibniz learned the extent of the czar's intended itinerary, the secret embassy did seem momentous both for its effects in Muscovy and for Leibniz's project on the Asiatic origins of European peoples and languages. From Teplitz, Poland, far from the election diet in Königsberg, Kochanski reported that the ambassador and general François Lefort, the Genevan, would head to the imperial court at Vienna. Kochanski acknowledged that the Poles had been singularly unsuccessful in persuading the Muscovites to open up a land route to China. However, the embassy of Lefort afforded an opportunity. Maybe the Germans could prevail where the Poles had not. Kochanski had written to a fellow Jesuit at the Viennese court and also to

another unnamed correspondent, asking them to ask the Viennese to ask Lefort to suggest to the czar that he open a land route. And doubtless the Jesuit General, at Rome, had lent his weight to the matter before the Viennese.[14] That summer, 1697, just as he sent Fardella on the truffle hunt for Petrarch's Cumanic dictionary, Leibniz himself devoted considerable energy to establishing contact with the Muscovite court in order to receive that elusive knowledge of Tartaric languages.

Attempting to Contact the Muscovite Court

Leibniz figured that for a month and a half—from mid-May, when he arrived, to the end of June—Chuno must have been preoccupied with the proceedings surrounding the royal election. Chuno was, after all, secretary to the president of the Brandenburg privy council, and with Poland on its eastern border and rival Saxony on its southern, Brandenburg took the election very seriously. Leibniz could not have known that the machinations that had brought the royal crown to the Saxon elector had taken the Brandenburg court completely by surprise. Nor could he have known that by the end of 1697 the president of the Brandenburg privy council—Eberhard Danckelman, Chuno's patron—would suffer a precipitous fall from grace, in part owing to the outcome of the Polish election. But for the moment it was still summer, and Leibniz imagined that since the matter of the election had been resolved, Chuno might have the leisure to resume linguistic and ethnographic inquiries on his behalf. With the Russian court right there, the diet in Königsberg presented the most promising opportunity to acquire real knowledge of Grand Tartary since Leibniz had undertaken this project. There must be any number of courtiers present who had specific knowledge of those peoples. Leibniz had heard through Sophie Charlotte that Danckelman had quizzed the czar about a map of the Muscovite Empire, whose domains extended from the Baltic to the Pacific, and the czar had acquitted himself well. It seemed that Czar Peter was well acquainted with his provinces.[15] Surely others in his administration would know even better than he. By the beginning of July Leibniz had also learned that the czar's entourage was coming farther west, at least to Berlin, possibly to Holland. Not fully counting on Chuno to come through for him on the question of Asiatic languages and peoples, Leibniz also sent word ahead to Ezechiel Spanheim, who had remained in Berlin. He urged Spanheim, in his position as a Brandenburg courtier, to press his colleagues to inquire about those distant and little-known nations. General Lefort might be the most promising prospect, Leib-

niz suggested, as he could use his authority to obtain the knowledge Leibniz wanted. Leibniz also began to hope that he might have a chance to see the Muscovite entourage for himself.[16]

Indeed, shortly after the Polish election was concluded, the diet at Königsberg broke up, and the Muscovite embassy headed west to Berlin. The Brandenburg court hosted the Muscovite court for a couple of weeks, and then the embassy was back on the road. In early August (Gregorian calendar) the three-hundred-person entourage passed through the territory of Hanover, en route to Holland. It did not pass through the city of Hanover itself but took a more direct route through Coppenbrügge, about forty kilometers south. The Hanoverian court threw a gala for the czar and his entourage. Electress Sophie; her daughter, Sophie Charlotte, electress of Brandenburg; her son Georg Ludwig, heir to Braunschweig-Lüneburg; and many of their courtiers drove down to Coppenbrügge to meet the czar. Elector Ernst August, ailing with a terminal illness, did not attend. Nor was Leibniz invited. He hoped instead to make contact with the Muscovites at their next station en route, at Minden, on the Westphalian border.

On the morning of August 4, Leibniz went to meet a fellow courtier, Francesco Palmieri, an Italian opera librettist who was a colleague of Bartolomeo Ortensio Mauro and Agostino Steffani. To his annoyance, Leibniz discovered that he had missed Palmieri, who had risen very early in order to travel to Coppenbrügge himself. Leibniz was told that Palmieri had known a Mr. Lefort at Rome, Lefort being then attached to a French ambassador. This news was cause for excitement: Palmieri knew the general, now chief ambassador and favorite of Czar Peter. Leibniz dashed off a letter to Palmieri telling him of his plan to meet the Muscovite court at Minden. He asked Palmieri to mention him to François Lefort and to prepare the ground for him.

Leibniz hoped to spark Ambassador-General Lefort's interest with a genealogy of the Muscovite nobility that Sparwenfeld had copied at Moscow. A year earlier, in 1696, as he showered Leibniz with gifts (none of them linguistic), Sparwenfeld had sent the genealogy through G. D. Schmidt.[17] The occasion of the Grand Embassy of the czar now gave Leibniz the opportunity to use it. The genealogy showed how Mikhail Fyodorovich, the first grand czar of the branch that reigned at present (Romanov), was a direct descendant in the masculine line from the head of the extinct Rurik dynasty. Once the dynastic subject was broached, Leibniz would then pitch his linguistic project. He prompted Palmieri to remind Lefort that while a map showed the regions of an empire, it did not reveal the many peoples who were subject to the czar.

These different races of nations (he did invoke the term *races*) could best be understood through the harmony of their languages. Of course, he acknowledged to Palmieri, politeness was of utmost necessity; Palmieri might not have the opportunity to raise Leibniz's interests discreetly. "For many people do not care about these curiosities, which they imagine to be of little use."[18]

Leibniz sent his note down the road, hoping it would catch up with Palmieri before he reached the gala at Coppenbrügge. But Palmieri was apparently mistaken about the identity of Ambassador-General Lefort. Although his acquaintance at Rome, a Mr. Lefort attached to a French ambassador, had subsequently traveled to Poland, Palmieri was told that the General François Lefort present at Coppenbrügge had been in Muscovite service too long to be the same person Palmieri had known at Rome.[19]

Undaunted, Leibniz doggedly traveled to Minden to meet the Muscovite court. He introduced himself in writing, where he spelled out concisely his linguistic concerns, and he brought along the family tree of the czars that Sparwenfeld had sent him several months earlier. He hoped the family tree would demonstrate his specific knowledge of the leading families of Muscovy and also his interest in that domain, and he hoped the first ambassador would want to know what knowledge was circulating in Europe.[20] Unfortunately, he did not succeed. Instead he found himself brushed aside to the twenty-three-year-old nephew of the ambassador-general, Pierre, who was traveling with the entourage as a gentleman-in-waiting.

Genealogy

Precisely what transpired at Minden is not known, but after he returned to Hanover Leibniz sent young Pierre Lefort a follow-up letter. Pierre had apparently offered to supply him with more information, so Leibniz sent him two enclosures. The first was an extract of the Romanov line from the genealogical tree that Sparwenfeld had sent him. The seventeenth century was the great age of historical chronology, the reconstruction of the basic sequence of national histories on the basis of fragmentary remains left from broken antiquity: coins, inscriptions, king lists, perhaps even more or less complete histories in languages like Persian, Arabic, and still-undeciphered Egyptian. By the end of the seventeenth century Europeans had developed royal chronologies of many of the nations of the ancient Mediterranean and Mesopotamia, and they were beginning to puzzle out the histories of nations farther east, like India, Siam, and China. It was indicative of just how remote

the Muscovite Empire was from western Europe that even the basic genealogy of the Grand Duchy of Moscow was still obscure.

Sparwenfeld's family tree, obtained at Moscow in the 1680s, was a kind of revelation. But Leibniz saw the need for further clarification. Himself a full-time genealogist (of the Guelf branch of the House of Este), Leibniz wanted to know specifically whether there was any link between the reigning Romanov dynasty and the extinct Rurik dynasty. Sparwenfeld's genealogy showed that the lynchpin was Ivan IV Vasilyevich (Ivan the Terrible), but beyond his marriage to Anastasia Romanova, Leibniz wanted to know what other alliances existed between the families. He asked Pierre Lefort to take the genealogy further back in time, if possible, and supply anything he could find regarding the noble families of Russia—their names, their seats of power, when they had lived, what significant deeds they had done, and what alliances they had made both through marriage and otherwise. Yes, such knowledge could be used to foment dissention and to undermine the legitimacy of the reigning monarch.

Western Europe itself was just concluding nine years of dynastic war, even if warfare had been avoided in the succession of Poland. Genealogy supported William III's claim to legitimacy in England following the Glorious Revolution, which had started that war. The English Bill of Rights in 1689 legitimized the reign of William and Mary and established the succession by which Mary's sister Anne would come to the throne in 1702. But already by 1700 it was clear that Anne would have no offspring who survived to adulthood, and so a new act of succession would have to be drawn up in order to prevent either a return to a Catholic monarch in England or war over who would bear the crown. So fragile was the British succession that the need was seen to unify formally and statutorily the crowns of Scotland and England, which for a century had been unified through the persons of the Stuart kings. Although in the summer of 1697 neither Leibniz nor anyone else could have had any inkling that the British succession would pass to the offspring of his patroness, Sophie, the electress of Hanover, these western European dynastic wars seem to have been in Leibniz's mind as he attempted to extract knowledge of the Russian nobility from the secretive court at Moscow.

Still, despite, or rather because of, such crises of legitimacy among the European nobility, every region of western and central Europe had long had its own genealogy and history *de nobiliario*. Even Poland had a book that recorded the nobility and their alliances, *Orbis Polonus*, which had been crucially

deployed in the election of August of Saxony. Should the Muscovite Empire not have something similar? Done correctly, it would display to the world the glory of the reigning dynasty. Leibniz suggested to Pierre Lefort that the czar would not be displeased by such a thing. As an added enticement, Leibniz pointed out that this was not mere scholarly curiosity—the electresses Sophie of Hanover and her daughter, Sophie Charlotte of Brandenburg, were themselves curious about the dignity of birth of those whose company they had enjoyed at Coppenbrügge. Leibniz suggested to Pierre Lefort that at the very least he might compile a roster of the nobility who were presently in Holland as part of the Grand Embassy. Leibniz suggested that Pierre include their names, their noble standing, and something about the families to which they or (in the case of the young Boyar hostages) their fathers belonged.[21]

What the Electresses Thought

A genealogy of the Muscovite and Russian nobility was a tall order for a twenty-three-year-old Genevan who had only been in his uncle's employ for three years. As an inducement to keep reading his letter, Leibniz offered a rundown of what the Hanoverian court had thought of the Muscovites. Leibniz himself had not been at Coppenbrügge, but he had been privileged to sit with the two electresses, the elector-apparent Georg Ludwig, and his brothers the Dukes of Braunschweig-Lüneburg when they gathered to discuss freely their perceptions of the dinner and dance. They described a quick-witted Czar Peter, who had sat between the two electresses, an interpreter on either side. They perceived a love of justice towards foreigners and clemency toward his own subjects. The czar had told them the story of a recent coup-d'état in the western South Caucasus—a region contested between the Ottoman and Persian Empires but still beyond the reach of the Muscovite Empire. The czar seems to have presented the deposed prince as entirely innocent and the aggressor as worthy only of death.[22] They were particularly impressed by Czar Peter's pious statement that his construction of a seventy-five-ship navy would all come to naught should the enterprise not be favored by God.[23]

Leibniz then subtly turned his discussion to General François Lefort, whose attention he truly sought, knowing that Pierre would certainly deliver the report to his uncle. The electress Sophie asked Leibniz to express to First Ambassador Lefort her hope that the Muscovites had enjoyed the meeting as much as the Hanoverians had; the Marshall of Koppenstein, who had acted as master of ceremonies, sent through Leibniz and Pierre a hand-kiss to the first ambassador; and Koppenstein's wife, who had kept a sharp eye on the

first ambassador throughout the evening, expressed wishes that the soirée could have continued longer.[24] Finally, to Theodore Alexeyevich Golovin, the second of the trio of ambassadors then traveling with the entourage under the direction of François Lefort, Leibniz announced that the Hanoverian court would be sending to the Muscovite entourage some Italian music. Sophie Charlotte had brought to Coppenbrügge some Italian singers in her employ (it was probably in this capacity that Francesco Palmieri had attended); although Czar Peter confessed that he was no connoisseur of music, apparently Second Ambassador Golovin had enjoyed the performance so much that he now requested musical scores so that his musicians could play them.

Golovin Introduced

Leibniz knew of Golovin by reputation. He was the governor of the far eastern provinces, including Siberia and the regions of Grand Tartary extending as far as China. Moreover, from his Jesuit sources he knew that Golovin had headed the Muscovite delegation to Selenginsk and Nerchinsk for the border negotiations with the Chinese and thus had crossed that great expanse himself at least once. If anyone was capable of supplying Leibniz with the linguistic knowledge he needed, it was Golovin. Leibniz suggested a kind of quid pro quo: the Italian music (or at least his announcing of it) plus anything else he might be able to do for Golovin in return for Golovin's procuring language samples.[25]

"Desiderata"

Leibniz's second enclosure sent to Pierre Lefort (the first being the genealogy) was his memoire "Desiderata circa linguas quorundam populorum." This was essentially the same request he had sent in early 1695 to Bodo von Oberg at Vienna, Chuno at Berlin, and Antoine Verjus at Paris. It was organized in two major parts, the first calling for Lord's Prayers and the second listing common words that one would expect to find in every language. However, as always, this was not a document run off from a boiler plate and reproduced rote as if a photocopy. Rather, Leibniz crafted this particular version for his specific audience in Muscovy.

It took five weeks for Leibniz's letter with its enclosed genealogy and "Desiderata" to reach Pierre Lefort in Holland. Lefort actually tried to help. He forwarded Leibniz's "Desiderata" to Moscow to try to obtain language samples. Although Lefort composed his response promptly, he delayed sending his letter for several weeks while he awaited a response from Moscow. Leibniz would not receive Pierre's response until October, by which time he

had given up on him and pursued other ways to reach the Muscovite delegation. Nevertheless, I present Pierre's response here in order to contain this brief exchange in a discrete unit.

Pierre Saw Some Tartars

Pierre Lefort had some personal knowledge of the Tartaric peoples in the Volga River valley. He had traveled down that river three years earlier, shortly after moving from Geneva to Muscovy, while his uncle the general, Czar Peter, and Golovin were preparing to drive the Ottoman Turks from their garrison at Azov in the northeastern arm of the Black Sea. The route was a circuitous one—from Moscow to Azov by way of the Volga. But for the logistics of transport, a water route was more serviceable than muddy roads. (Czar Peter had drawn up a plan for digging a canal that would connect the Don River with the Volga. Leibniz would acquire a pencil sketch of a planned canal connecting the Sea of Azov and the Don River to the Volga, which he labeled "drawn by the hand of Golovin.")[26]

Pierre did not have the eyes of an ethnologist, but he did notice some things along the way. First, the entire region from Kazan to Astrakhan was very sparsely populated, with only six or seven towns over some three hundred miles of road. Second, on the near bank of the Volga (i.e., the western side) lived numerous tribes that were not indicated on Nicolaas Witsen's map. Pierre confirmed Leibniz's statement that although a geographical map like Witsen's (Leibniz had mentioned it by name in his August letter) indicated political boundaries, it did not necessarily identify all the tribes or populations living in a region. Pierre himself did not know the names of all the tribes. He remembered the name of one (the Chuvash). But to his untrained eye, these peoples to the west of the Volga all looked the same: ugly, disheveled, worshipping the first thing that they saw to be unusual, and so superstitious as to believe that their deceased bodies would be metamorphosed into cattle.

On the far (i.e., eastern) side of the Volga the situation was different. There the population was urban, living in towns, and Pierre described them as all speaking Tartaric. Further east, toward the steppes and beyond, were the Kalmyks, whose lands, as Pierre had earned from Second Ambassador Golovin (speaking in his capacity as governor of Siberia), reached all the way to the Amur River border of China. "These are some people all speaking one same language, which is properly called Calmouc," wrote Pierre.[27] He did not know whether the Kalmyks were literate. Pierre understood from Golovin that Muscovites lived at Tobolsk, the seat of government for Siberia. The univer-

sal language there was Slavonic, except among Samoyeds near what Pierre referred to as the "Northern Sea," whose lands extended as far as Archangel.

Tartaric, Kalmyk, Slavonic, Samoyed—Pierre presented an image of northern Asia and Grand Tartary with considerable linguistic uniformity. Pierre Lefort and Golovin understood linguistic inquiry to mean asking what language one could use in a given region in order to make oneself understood. In the Far East that language was Kalmyk; at Muscovite administrative centers it was Old Church Slavonic; nearer to Astrakhan it was Tartaric. Leibniz, by contrast, was looking for indigenous languages. He wanted to know what mother tongues were spoken at home such that one tribe could make itself incomprehensible to others. Leibniz was looking for a diversity of languages, not uniformity of communication. That diversity could be made to betray the historical relations between peoples whom at first blush seemed to be different, for example, Finns and Hungarians, of whom Leibniz knew from the thirteenth-century Dominican report of Hungarian speakers still living beyond the Caspian Sea. Thus, three widely separated sets suggested a common origin. Leibniz had asked Pierre about Hungarian specifically. Pierre said that Hungarian was impossible. Even if the Huns and the Hungarians had shared some linguistic connection, they could not have originated in the Muscovies, Pierre maintained, since the mother language of all Muscovy was Slavonic. "So voilà Sir, all that I can tell you at present with regard to this nation."[28]

When he finally received Pierre Lefort's response two months after the meeting at Minden, Leibniz perceived that he and Pierre were not talking about the same thing. A summary of a letter that he drafted to Pierre survives, dated 5/15 October 1697. There Leibniz explained that he would not expect to find an island of Hungarian in a sea of Tartaric. Hungarian was entirely different from all the Slavonic languages. He protested that "there is nearly certain proof that they [the Hungarians] came from the region behind the Caspian Sea, also that of the Volga, near the Uzbecs but further north. And it is assured that remnants of their language do exist."[29] Nor was Pierre's report about Siberia credible. Simply looking at Witsen's map, Leibniz could see that Samoyed was different from Permian, which in turn was different from Sirannian, all of which were different from Slavonic and Russian. Witsen's map showed Mongols to be on the Amur River border with China, not Kalmyks. Was there a difference between the "Mugalski" on the Muscovite side and the "Mangurs" on the Chinese side? Was this Mugal/Manchu/Mongol language essentially different from Uzbek and the language of Turquestan, the ancient Turkic homeland? That is, he wondered whether the term *Grand*

Tartary had any validity as a unifying concept. Leibniz was gravely skeptical of Pierre Lefort's report. Nevertheless, Pierre's own observations of the Volga peoples was useful to him, and Leibniz thanked him for that. Pierre had said that Golovin had promised a fuller report about the peoples of far eastern Muscovy, near China. Leibniz eagerly hoped for such a report, although it was unlikely that such a thing would ever appear. Indeed, Leibniz never heard from Pierre Lefort again.

Nicolaas Witsen

So close and yet still so far away—three hundred Muscovites in western Europe and still only very meager knowledge of the peoples under their dominion. In September 1697 Leibniz began to pursue other approaches to the Muscovite delegation. First on his list was Nicolaas Witsen, creator of the map of Grand Tartary, based on information Witsen had acquired personally at Moscow. A diplomat in his own right, Witsen had been mayor of Amsterdam as well as a director of the Dutch East Indies Company. Must he not have been in frequent contact with ranking members of the Muscovite delegation? Indeed, although he could not have been certain when he first wrote, Leibniz later learned that the czar had accorded Nicolas Witsen privileges of access that few others had.[30] Leibniz had not corresponded with Witsen for three years when he sent an order to a Rotterdam bookseller to send Witsen a copy of his *Codex Juris Gentium Diplomaticus*.[31] The mathematician Christian Huygens had confirmed that Witsen received that book, but Witsen himself had never acknowledged receiving it. Owed a debt of gratitude, Leibniz took the opportunity to ask Witsen a favor.

The favor was simple: to remind General François Lefort of a promise he supposedly had made, both at Coppenbrügge through Francesco Palmieri and at Minden and Amsterdam through his nephew Pierre, to issue an executive order for linguistic inquiry. (He would understand by his reading of Pierre Lefort's letter in October that Golovin had made a similar promise.) Leibniz now asked Witsen to reinforce that request for samples of Asiatic languages. The proper technique, Leibniz explained, included Lord's Prayers plus word lists—as he had explained to Pierre in his formal "Desiderata." The Lord's Prayer should be translated into each language and returned to him with an interlinear explication of each word of the prayer. The word lists should include the most mundane of concepts, although to Witsen he did not spell these out as he did in the "Desiderata" memoire. This work, he suggested to

Witsen, would bring glory to the czar. The world might then know the number nations over which the czar was master, to say nothing of the many others whose borders the Muscovite Empire touched. And what could be more pious than to translate the Lord's Prayer into every language, "that every tongue might praise the Lord"? In addition, Leibniz acknowledged his own interest in this project, which was to discover the origins and relations of nations.[32]

Leaving nothing to chance, Leibniz also wrote to Jacob Hop, a Dutch diplomat whom he had met at Hanover the previous spring.[33] Witsen having proven himself a less than reliable respondent in the past, Leibniz hoped Hop would prod Witsen into action by personally augmenting Leibniz's inanimate letter. And indeed Hop came through. The day after receiving the letter, Hop approached Witsen about what Leibniz desired from the Muscovite delegation. The day after that, Hop wrote to Leibniz promising that he and Witsen would inquire of any interpreters in the Muscovite entourage, and as soon as they had some results, they would send them to Leibniz.[34]

Hop's promise in hand, Leibniz quickly sent more specific instructions about what he was looking for. It was October. Pierre Lefort's letter had just arrived, and Leibniz must have felt himself rebuffed by Pierre's false universalizing ("all speaking one same language [Kalmyk]," "don't speak other languages [Slavonic near Tobolsk]," "who all speak Tartaric [east of the Volga]").[35] To counteract such stonewalling, Leibniz prompted Hop to press for specificity: "Like the Samoyeds, Permians, Baskirs, Usbecs, Calmucs, Mugales."[36] Even if it were impossible to translate the Lord's Prayer completely, Leibniz believed that there must be Muscovites among the delegation in Holland who could send word lists at the very least. Thus, Leibniz placed with Hop an immediate request for brief samples of Asiatic languages. Over the longer term, Leibniz suggested that Hop and Witsen might persuade François Lefort to urge the czar to order a thorough inquiry into the languages of his many subject nations. Once the order was given, suggested Leibniz, Golovin would be instrumental in actually carrying out the linguistic inquiry. Leibniz explained to Hop that he felt emboldened to articulate his request for languages because of increasing support from the electresses themselves. Indeed, he had already told Sophie of Hanover that Hop had promised to assist, and he assured Hop that Sophie remembered well the walk she had enjoyed with him through the Herrenhausen gardens at Hanover a few months earlier.[37]

Heinrich Wilhelm Ludolf

In addition to employing Jacob Hop to nudge Nicolaas Witsen into action, in early September 1697 Leibniz also pursued a second Dutch approach through the person of Heinrich Wilhelm Ludolf. Heinrich Wilhelm (1655–1712) was the nephew of Hiob Ludolf, whom Leibniz had met at Frankfurt on his way to Italy in 1689 and with whom Leibniz corresponded on many subjects, chief among them linguistics.[38] In his youth, Heinrich Wilhelm had traveled to his uncle's house at Frankfurt, where Hiob had instructed him in Oriental languages, Hebrew, Arabic, and Ethiopian. At Frankfurt, a pastor named Philip Jakob Spener ran a conventicle in Hiob Ludolf's house, and there Heinrich Wilhelm came into the orbit of the Pietist movement.[39]

Heinrich Wilhelm found his way into Danish diplomatic service, eventually becoming secretary to Prince George of Denmark. In the 1680s Prince George married Anne Stuart (the future Queen Anne of England) and became Duke of Cumberland. George moved to England, taking Heinrich Wilhelm with him. In 1692 Ludolf was sent on a secret commercial and diplomatic mission to Muscovy. En route he studied Russian, and he remained in Muscovy for a year and a half, perfecting his knowledge of the language. On his way back to England in 1694, he stopped in Sweden, where he consulted with J. G. Sparwenfeld, who had just returned from his Goth-hunting expedition. Sparwenfeld thus gained a contact at the Sheldon Theatre at Oxford—it was Ludolf who carried Sparwenfeld's Slavonic manuscript to Edward Bernard. Ludolf himself began work on what would become the first grammar of the low, or common, language of Muscovy, Russian, as opposed to the high, or court, language, which was Old Church Slavonic.[40] In addition to a formal grammar, Ludolf included a glossary of *naturalia* and a phrasebook offering complete common expressions about food and drink, domestic matters that might arise between master and servant, travel, and religion.[41] When Ludolf learned that the czar's entourage was at Amsterdam, he crossed the Channel and spent the fall of 1697 among them. When Leibniz learned that Heinrich Wilhelm was at the embassy, he quickly sent him a letter seeking assistance with acquiring Asiatic languages.

Thanks to his knowledge of the Russian language, Heinrich Wilhelm Ludolf quickly ingratiated himself among the Muscovite entourage. The second ambassador himself, Golovin, seems to have enjoyed his company. By the time Leibniz wrote in early September, Ludolf had already met Golovin in Amsterdam, and they planned to meet again when Golovin traveled to

The Hague for the negotiations at Rijswijk. Golovin was the right person to ask for information about languages, Ludolf told Leibniz, in part because of his role as governor of Siberia and his embassy to Nerchinsk. But Ludolf also described Golovin as "very obliging and highly esteemed both among foreigners and among the better men of his land." François Lefort, by contrast, was too distracted by diplomatic matters to give any attention to scholarly inquiries. Ludolf promised to speak to Golovin about translations of the Lord's Prayer, but he warned Leibniz that peculiarly Christian terms in the prayer, like *sanctify* and *temptation*, would not translate well into most Asiatic languages.[42] This obstacle did not worry Leibniz much. He assured Ludolf that eventually, once the languages were better known, the prayer could be translated completely and with all its formulae, "that all tongues may praise the Lord." But in the meantime, he would be satisfied with even a list of "the principal component words like: Our, father, heaven, name, to come, kingdom, will, earth, bread, to give, today, to pardon, debt, to lead, to tempt, to deliver, evil." Even detached from the prayer, such terms could illuminate the relations between languages. He prodded Ludolf to impress upon Golovin that such knowledge, and even a partial translation of the Lord's Prayer, would bring glory to him as governor of Siberia and also to the czar.[43]

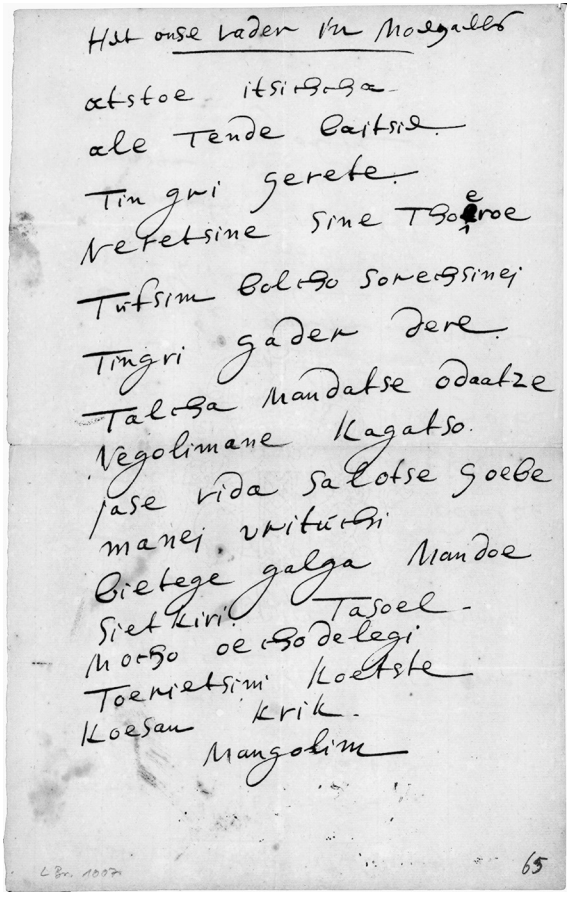
Obtaining Some Results

Witsen's Pater Noster

By mid-October Leibniz's name had certainly reached the ears of Golovin. Faced with nearly identical requests for Asiatic languages from two separate parties, Ludolf and Witsen, Golovin assigned an assistant in his delegation to work with each of them in turn. As it happened, the governor of Siberia had brought three Mongols to Holland as part of his delegation. To one of them he assigned the task of sitting with Witsen in order to translate the Lord's Prayer.

They did not get along. Witsen described Golovin's assistant as "a slave," clearly beneath Witsen's own station, which was how he probably also saw the work of translating. Witsen swore that years earlier, he had duly written to thank Leibniz for his *Codex Diplomaticus*, but for some reason it had not reached Leibniz. Sitting with this Mongol to satisfy Leibniz's desire for linguistic knowledge was a kind of republic-of-letters penance. So Witsen and Golovin's assistant translated the Lord's Prayer into Mongolic, "with much trouble," as Witsen put it.[44]

It is testimony to the novelty of Leibniz's linguistic inquiries that even Nicolaas Witsen did not fully understand what Leibniz was looking for. Witsen did



Witsen's Mongolian Lord's Prayer. Although a curiosity, this transcription by Nicolaas Witsen of the Lord's Prayer in a Mongolian language, sent to Leibniz in October 1697, was of little use to Leibniz because it lacked an interlinear translation. (Gottfried Wilhelm Leibniz Bibliothek—Niedersächsische Landesbibliothek, Hanover, LBr. 1007 Bl. 65.)

not record an interlinear translation of the Mongolic Pater Noster. Lacking a means to determine to which concept each Mongolic term referred, the language specimen was useless to Leibniz. Nearly every request for Pater Nosters, dating from as early as 1691, was accompanied by a reminder that they must include an interlinear translation in some known language. Latin, German, French, Greek, Russian—it did not matter, because Leibniz could look up the meaning of the known term even if he did not know the target language. But

Witsen did not comprehend this need, and despite the hours he must have spent with the Mongol slave attempting to achieve a meeting of minds between Dutch or French (or possibly Slavonic) and the Mongolic language, it apparently did not occur to him that Leibniz would require a translation. Moreover, Witsen apparently thought Leibniz was assembling curiosities from around the world around, for from the archive of the Dutch East Indies Company he included a Pater Noster, a Credo, and the Ten Commandments in the Hottentot language of South Africa. But Leibniz had no use for African languages. Although his project was as expansive as Asia was wide, Leibniz's interest in languages was actually very focused: it was to determine the origins and relations of the nations of Europe so that he could explain who the Lower Saxons, whom the House of Guelf ruled, were and how they had come into the country.

Laborious as the task was, Witsen warmed to Leibniz's linguistic project, even if he did not understand it. Witsen promised to procure the Lord's Prayer in any other languages that might be known by members of the Muscovite embassy. He confirmed Pierre Lefort's claim that Kalmyk and Mongolic were "practically the same language." Uzbek was "the same as Persian." And he reported that there were no Samoyeds in the Muscovite embassy, but he would send to the Dutch trading post at Archangel in order to procure a sample of the Samoyed language.[45]

Ludolf's Pater Noster

Two days after Nicolaas Witsen enclosed the Lord's Prayer in Mongolic, Heinrich Wilhelm Ludolf sent Leibniz a second language sample in Mongolic. Ludolf reported that not one but three Mongols were serving in Golovin's entourage. He did not describe them as slaves as Witsen did. One of the Mongols was literate in both Mongolian and Tibetan. Ludolf explained that since the Dalai Lama resided in Tibet, all the Mongolian lamas tried to learn the Tibetan script, just as the Arabic script had been accommodated to so many languages throughout the Muslim world. He enclosed a sample of the Tibetan script. But neither Tibetan nor Mongolian was understood very well in Muscovy, so like Witsen he expressed the difficulty in translating the Lord's Prayer into those languages. In fact, Ludolf and the Mongol helping him gave up before completing the prayer. "It took enough effort just to translate this little beginning of the Lord's Prayer."[46]

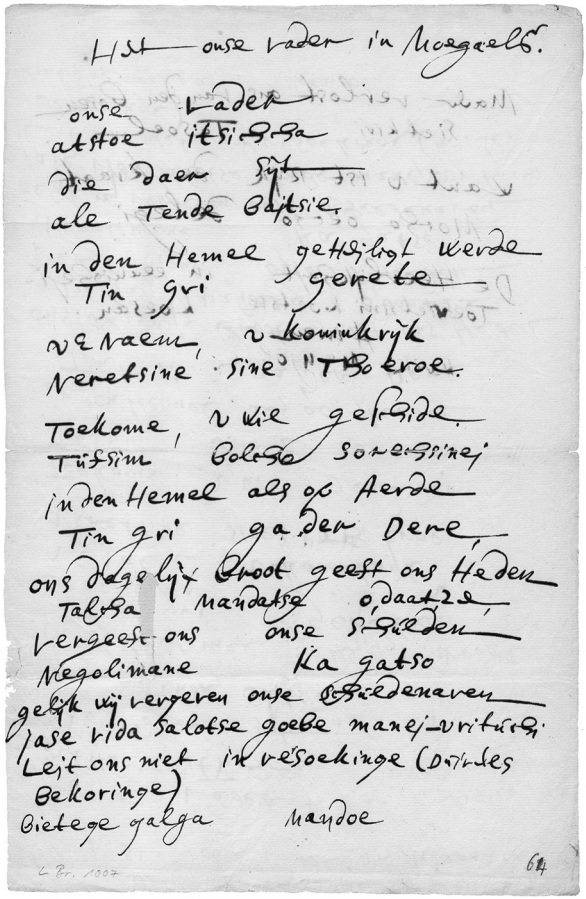
Leibniz noted that the two versions of the Lord's Prayer in Mongolic—Ludolf's partial version and Witsen's complete one—agreed closely. He

pieced together the comments of both Witsen and Ludolf to conclude that Witsen's "slave" must have been one of the three Mongols in Golovin's suite. He pulled out the purloined extract of Ferdinand Verbiest's *Elements of the Tartaric Language* that Reyer and Chuno had procured for him in 1695, comparing the script offered by Verbiest with the Mongolic script of Ludolf's prayer translation. They seemed to share some connection. However, he noted that the Tibetan script was completely different. But, he speculated, "it could be that the difference between the Language of Tangut and of the Mogals is not as great as the difference between their characters."[47]

Leibniz Follows Up

Leibniz requested that Ludolf look into a couple of items left incomplete by Nicolas Witsen. First, an interlineated version of the Mongolic Lord's Prayer. Without an interlinear translation, he really could do little beyond comparing its appearance with that of the line Ludolf had sent. Leibniz made a copy of Witsen's version and enclosed it in his letter to Ludolf. Second, the equation of the Mongolic language with Kalmyk. "Mr. Witsen also told me that the languages of the Calmucks and the Mogals are not very different or rather that it is one same language at the source." Leibniz had heard the same equation from Pierre Lefort, and both Lefort and Witsen had obtained their information from Golovin. Since Ludolf had a close relationship with Golovin, Leibniz hoped he might press him for more clarification. And while he was at it, might Ludolf not remind Golovin of his promise to pursue some more exact inquiry into the languages both of the Russian Empire and around its borders. "But," he acknowledged, "we are coming upon some matters that go into the [realm of] Curiosity."[48] Indeed, Mongolian, Tibetan, and Chinese Tartaric lay far beyond the languages and nations that could have emigrated out of central Asia and settled in Europe.

The letter with these follow-up requests never reached Ludolf. Leibniz was not surprised by this, as in his October letter Ludolf had indicated that he expected to remain in the Netherlands only another week or two. By the end of November, when Leibniz finally received that October letter, he assumed that Ludolf must have departed. Nevertheless, he put his thoughts down on paper and sent them to the Danish embassy at The Hague on the off chance that Ludolf might have delayed his departure or that the letter might catch up with him somewhere down the road. Leaving nothing to chance, Leibniz also wrote directly to Nicolaas Witsen, thanking him for his effort in procur-



Nicolaas Witsen's revised translation of the Lord's Prayer in Mongolian, interlineated with a Dutch translation. (Gottfried Wilhelm Leibniz Bibliothek—Niedersächsische Landesbibliothek, Hanover, LBr. 1007 Bl. 64.)

ing the Mongolic Pater Noster and asking him to provide an interlinear translation so that the prayer could be used for comparison.[49]

By this time Witsen was beginning to take Leibniz and his scholarship seriously. At the next opportunity Witsen did approach Golovin and his Mongolic servant in order to finish the task in which he had already invested some number of hours. He did manage to verify the Mongolic terms as they corresponded to the Dutch formulae in the prayer, but the experience was just as frustrating as it had been the first time. "*La stupidité de ce Moegal* who is here is so great

that one can hardly draw from his mouth any knowledge, either of his Country, or of the *moeurs* of the Region. They live in Tents in the manner of ancient Nomads, changing locations as soon as the herbs and the pasturage are consumed. The Religion is Pagan: they worship wooden Images."[50] For the next few years, Witsen remained a reliable correspondent. Leibniz next wrote to him in April 1698, and Witsen responded with three letters in a row in April, May, and June, even coming up with a Samoyed Pater Noster from Archangel as he had promised in October. Witsen was becoming useful as a conduit of knowledge even if he did not have the patience of an anthropologist.

Certainly the failure to acquire specific data on the languages of Asia was not for lack of effort. Indeed, so persistent was Leibniz in his requests for language samples that it sounds as if his quest reached the ears of the czar himself. The Hanoverian and Brandenburg ambassadors in Holland reported that in the Muscovite Empire there were some twenty-seven known languages, all so different from one another that none could be understood by speakers of the others. The czar himself knew two of those twenty-seven languages, into which he would gladly have translated the Lord's Prayer, except that the formula "hallowed be thy name" was untranslatable.[51]

It is not as if Leibniz expected the czar himself to translate the prayer for him. But the fact that the czar did know some of the languages proved that there was some knowledge of the languages hidden within the Muscovite embassy. The problem was how to extract it. François Lefort was too occupied with diplomatic matters to be of any assistance, as Ludolf reported; and even Pierre had not been able to gain his uncle's attention on Leibniz's behalf. Leibniz hoped that either Lefort as prime minister or the czar might issue an executive order for the long-term gathering of linguistic knowledge.

To that end, Leibniz drafted a think piece, completely unsolicited and evidently never sent, on how the czar might simultaneously debarbarize the many nations of his empire and advance the sciences in his realm. It was a blueprint for a Moscow academy of sciences twenty-five years before Peter the Great endowed such an institution at St. Petersburg and three years before Sophie Charlotte endowed one at Berlin.

Plan for a Moscow Academy of Sciences and Arts

The arrival in western Europe of the czar's Grand Embassy marked an auspicious moment for the prospects of the Christian faith and the betterment of the human condition, wrote Leibniz. Three Christian empires now surrounded

the Muslim Ottoman Empire. Czar Peter's construction of a Black Sea fleet promised to roll back the Ottomans in the north. In the south the Christian king of Abyssinia had halted the Ottoman advance there. From his correspondence with Hiob Ludolf, a scholar of Semitic languages, particularly Ethiopic, Leibniz knew that the Abyssinian monarch, Jasok Adjam-Saugbed, had sent an embassy to Amsterdam in 1692. And in the west, Peter's "heroic courage" was an encouragement to the Holy Roman Empire to keep up the good fight. The surprising election of August, elector of Saxony, as king of Poland gave reason to hope that "God is disposed to humiliate the Ottomans and is set to pursue the Muslims at least from Europe."[52]

Moreover, all three great monarchs—of China, Abyssinia, and Muscovy—were actively working to modernize their empires for the betterment of their subjects. All three had designed plans "to attract to their lands the sciences, the arts and the good manners particularly of our Europe."[53] To assist the czar in his grand plan, Leibniz wrote a proposal on a topic dear to his heart, the foundation of an institute for the promotion of the arts and sciences in the empire of Muscovy.

Leibniz envisioned the institute as being endowed by the czar and directed by a board of well-connected scholars who sought glory and the public good ahead of their own personal gain. These philanthropists would create a climate receptive to foreign expertise and build museums to inspire Muscovites with wonders both natural and human from around the world. They would develop a policy of domestic education in the arts and sciences and in the mechanical arts (what we would call technology and engineering). Printers and booksellers would be encouraged in order for practical knowledge to be disseminated as widely as possible. And the institute would sponsor an ethnogeographical survey of the entire empire in order to identify what the land actually produced as well as what it might produce under more efficient conditions. Leibniz's vision might have been a blueprint for the Imperial Academy of Sciences founded by Peter the Great at St. Petersburg in 1724. There was only one flaw in Leibniz's program: in 1697 the czar had no intention of "debarbarizing" his country. The czar's "plan" was only wishful thinking on Leibniz's part, a figment of his imagination.

"À Debarbariser Son Pays"

The rumor about "the Czar's good plan to debarbarize his country" came from a misreading of a letter from Adam Adamandus Kochanski from January 1692. That winter Kochanski reported to Leibniz the news of Muscovy

that the Polish court had received from an envoy of the Holy Roman Empire. The envoy, Johann Igniz Kurz, had informed Kochanski that the Jesuits had been expelled from Moscow by the late Russian Orthodox patriarch Joachim (d. 1690). Kurz had strongly argued on behalf of the Jesuits and for permission to send missionaries to Muscovy and through its territories to China, but in vain. Nevertheless, he hoped for great things from Czar Peter. Spurning the advice of the new patriarch, the czar followed French fashions in his closely trimmed beard and his clothing. Nor would the czar tolerate any of the Boyars' staring at his clipped beard. Anyone caught staring suffered the punishment of the barber being summoned and having his own beard clipped in the same fashion while the czar looked on. Furthermore, it was said that the czar had summoned the Jesuits to hold a disputation with Orthodox priests over *filioque*, the Trinitarian doctrine that the Holy Spirit proceeded from both the Father and the Son, which had been the proximate cause of the schism between the Roman Catholic and Greek Orthodox Churches in the eleventh century.[54]

Initially, Leibniz responded to Kochanski simply: "What you say about Czar Peter is cause for rejoicing and hope for humane improvements among that nation."[55] But over time the evidence offered by Ambassador Kurz of Peter's freethinking grew to greater proportions in Leibniz's mind. Three years later, in 1695, shortly after he made contact with Chuno at Berlin, Leibniz commented, "I was once told that one of the Czars is inclined to debarbarize his country [*à debarbariser son pays*]," and he referred to it as "a good plan" (*un beau dessein*).[56] (Or by *debarbariser* did he mean an empirewide program of beard-trimming?) Indeed, so strong was the idea of the czar's "inclination to debarbarize his country" that Chuno remembered it two years later when he announced that the czar was traveling incognito with his ambassadors.[57] By the summer of 1697 Leibniz was using the phrase as a matter of course.[58] No longer was the czar's intention a matter of European speculation or hope. For Leibniz it had blossomed into a full-fledged fact and program of action.

That Leibniz imagined a plan where none existed at all goes some distance to explain why, despite his earnest appeals, the ranking members in the Muscovite delegation had no time for him. Because he imagined that a policy of modernization existed in Muscovy, Leibniz was bewildered that all of his inquiries, which pertained to the greater good of humankind, not just to his own projects, went unanswered. Because the czar had not yet formulated the plan that Leibniz imputed to him, the ambassadors must have perceived him as an annoyance. Certainly word got around of this German seeking Lord's Prayers in obscure languages. In September 1697 Pierre Lefort must have been

tapping his uncle on the shoulder. In October, Heinrich Wilhelm Ludolf and Nicolaas Witsen both independently approached Golovin for access to his Mongolic servants. In November, word of the Lord's Prayer project reached the czar himself. Fourteen years later, in 1711, Leibniz would actually win an audience with Peter the Great, who by then had in fact begun a vast program of importing western European experts to his empire. And the year after that the czar took Leibniz's proposals seriously enough that he hired him on retainer as an adviser for what would become the Russian Academy of Sciences.[59] But in 1697 Leibniz was no more successful in gaining access to the court of Muscovy than he was in gaining knowledge of China from the Jesuits.

Other Instances of Wishful Thinking

Taken alone, Leibniz's invention of a pseudoplan by the czar to debarbarize his country seems a trifling error. In fact, however, this invention was part of a pattern that offers insight into Leibniz's method of operation. On more than one occasion Leibniz creatively misunderstood (or appropriated) a statement made by one of his correspondents. He took the statement as indicating that a third party had promised to provide him with certain kinds of knowledge. He then trumpeted that supposed promise to others in his correspondence network in order to apply pressure for the knowledge he sought. For example, Leibniz repeatedly announced to his correspondents that the Jesuit Grimaldi had "promised" to rectify the imbalance of knowledge flowing out of Europe to China by sending some knowledge of China back to Europe.[60] Maybe Grimaldi acknowledged that he had made such a promise,[61] but other supposed promises appear to be more equivocal.

Or consider the king of Poland. On the basis of Kochanski's reporting of Grimaldi's conversation with King Jan III Sobieski of Poland about Tartaric languages in Europe and the Far East, plus the acknowledgment of his linguistic interests that he received from Charles Maurice Vota, Leibniz imagined that the king of Poland had promised to supply him with linguistic samples obtained by Polish diplomats in Muscovy. But there is little evidence that the king had actually issued such an order. Nothing ever came of such an order, even if it had been given, and in any case the imagined order expired upon the death of the king in 1696.[62]

So too in the fall of 1697, when Leibniz attempted to contact the Muscovite Grand Embassy he imputed to the second ambassador, F. A. Golovin, a promise to obtain language samples for him. News that Golovin had made such a promise was relayed by Pierre Lefort, who attempted to appease Leibniz

by pushing any obligation off to the future, saying, "The Second of my Ambassadors has promised me that he would give me details about the peoples who live at the frontiers of China."[63] Leibniz pressed Pierre to follow through, stating that he would be delighted "to see the memoire of the peoples near China that the Ambassador Mr. Golovin has promised you."[64]

Three days before Leibniz pressed Pierre to follow through, he wrote to Ludolf linking the supposed plan of the czar to debarbarize his country with his hope for language samples obtained through Golovin. "Tell me, above all," wrote Leibniz, as if the plan were a fact, "how you think that it could be insinuated to the Czar what would be truly suitable to the great plan that he has, to render his subjects more enlightened."[65]

Ludolf played along with Leibniz's assertion. A couple of weeks later he responded that Golovin, with whom he had spoken on a couple of occasions, indeed "seems very disposed to favor the plan to cultivate the spirit of this great nation."[66] But look at what Leibniz did next. Having secured Ludolf's acquiescence, he claimed that Golovin's promise for language samples had been made not to Pierre Lefort but to Ludolf himself! "I hope that the Ambassador Mr. Golovin will remember the promise that he made to you, to make some more exact researches on these distant languages that are in the empire of Russia or that touch it."[67] Leibniz had in fact asked Ludolf to assist him in securing language samples, but Ludolf had said nothing of any promise given by Golovin. In this November letter Leibniz simply made that promise up.

This Particular Proposal

Thoroughly convinced that the czar did indeed have a plan to debarbarize his country, Leibniz set about imagining how that plan might best be implemented. This was the purpose of his think piece on how to organize what he called "a general institute for the sciences and arts."[68]

A general institute for the sciences and arts as envisioned by Leibniz would have two principal objectives: to attract the best of what the foreign world had to offer, including excellent and intelligent persons, as well as rare and useful artifacts and techniques, and also to cultivate domestically the peoples who lived under Muscovite dominion and the regions and resources indigenous to it. The institute would be directed by a board of scholars who were hardworking, well connected abroad through correspondence, and interested in glory more than in personal gain. Precisely how the institute would be endowed was up to the czar. The better its funding, the greater its results

would be. Leibniz reminded his audience that time was more valuable than money and that the czar would have to consider whether to create a legacy for the benefit of posterity or to make the improvements felt in the here and now.

To attract foreigners would require repealing the laws that prohibited them from entering the country. Transportation should be offered for bringing their clothing, furniture, and everything else they required to their new homes in the empire. Exit visas should be easily available, but if immigrants were treated well, the czar would gain ten for every one who changed his mind and left. If they came in large numbers, the czar might consider settling them in colonies.

As important as foreign experts themselves was foreign knowledge. This would come in the form of books. Leibniz proposed libraries, bookstores, and printers as places the czar's subjects could go to learn techniques from abroad in order to imitate them. "Books, both printed and manuscript, contain a treasury of human knowledge on all sorts of subjects, since by means of writing and particularly printing knowledge is fixed and transmitted from one to another as well as to posterity."[69]

In addition to bookstores, museums would impart the wonders of nature and the techniques of man. Natural-history cabinets would display rocks, metals, minerals, plants, taxidermized animals, and skeletons, as well as paintings depicting items for which original specimens were not available. Zoological and botanical gardens could house living specimens, including ponds, fish tanks, aviaries, and orangeries to keep tropical plants alive during the winter. Cabinets would display human inventions as well—mathematical instruments, pipes, clocks, mirrors and glass, tables displaying the craftsmanship of woodworkers, statues and sculptures, medals and other antiquities. Moreover, Leibniz envisioned functioning mills and factories both to display the operation of machinery and to dispense useful products, including medicines.

All this knowledge would have to be imported, so in addition to attracting foreign immigrants, permission should be given to wealthy Russians to travel for their own curiosity and education. Commercial companies could be established for trade via both sea and land. Merchant colonies could be established abroad, and individual merchants might join caravans to Europe, Persia, India, or China, all with an eye toward bringing back what was best from around the world.

Domestic education had to be invented from the ground up. Instructors should be chosen for their ability to lead students toward virtue as well as science. They would have to write their own textbooks. Leibniz described a

curriculum centered around history, mathematics, and languages (particularly Hebrew, Latin, Greek, and German, but especially Latin, which was still the lingua franca of science in Europe).

Finally, the general institute for the sciences and arts would conduct a survey of the Muscovite dominion in order to determine what resources it contained (including geographical boundaries, watersheds, the quality of terrain, and the people who inhabited it) and how these might be most advantageously developed. The land should be domesticated with grain, useful trees, and draft animals. Mines should be developed to extract metals and minerals, forges and glassworks built, canals and roads constructed, and swamps drained in order to convert wastelands to productive employment.

Moral of the Story: Domination and Exploitation

This was an ambitious program. Leibniz acknowledged that not everything could be done at once. Instead the czar or the institute's board of directors should have a specific end and pursue that end with vigor.

It was also a program of domination and exploitation. Not only was nature to be wrestled into productive submission through mining, agriculture, and development but the myriad peoples—the subjects of Leibniz's linguistic curiosity—were to be civilized as well. "The principal concern" of the ethnographic survey "ought to be to pull them away from stupidity [*bestise*], impiety, and laziness."[70] Knowledge of the several nations' languages, religions, and customs (*police*), and especially their economy, whether nomadic or agricultural, would aid this program of debarbarization. Initially the survey would reveal what the land and its people actually produced. But its ultimate purpose would be "to examine what they could produce . . . if the people were industrious."[71]

When Leibniz imagined a plan for debarbarizing the country, he was not celebrating toleration or diversity. (When I showed this document to a class of undergraduates at my university, a Ukrainian student was galled at how baldly and blatantly Leibniz expressed this program of "Westernization.") Indeed, Leibniz saw only one way to improve the general good of humankind. That way was the European way. To debarbarize the czar's country meant to homogenize it on the model of Europe. This was true even if debarbarization included absorbing what was best from regions outside Europe, like Persia, India, and China, which Leibniz named specifically. Europe was a cultural sponge. The practice of absorbing other nations' products and techniques had been perfected as almost an art form in Europe during the age of explora-

tion.[72] No wonder the Grand Embassy was little interested in big ideas from European courtiers. Its unwillingness to open itself to the world indicates just how far Muscovy remained from Europe.

Hare-Brained Schemes: For the Advancement of Humankind

As the summer of 1697 turned into fall, it became increasingly clear that the Grand Embassy of Czar Peter was turning into a huge missed opportunity. Indicative of his desperation, Leibniz concocted a series of dubious schemes in an attempt to impose European knowledge on ranking Muscovite officials despite their disinterest. The unsolicited plan for a Russian academy of sciences was only one example. Although many of his correspondents saw little hope of success for these efforts, once Leibniz set his mind on a project there was no deterring him short of an official directive to cease and desist.[73] Had Henri Justel not warned him that his hope of extracting linguistic knowledge from the Jesuits would all come to naught?[74]

Scheme 1: To Insinuate a Mechanical Genius

In September 1697 Ludolf had reported that the czar had settled in Amsterdam for a stay of several months.[75] Leibniz expressed hope that some profit would come of the lengthy time the Muscovite embassy remained in Europe. "Let us make an effort to profit from this," Leibniz told Ludolf, "not for ourselves but for the public good."[76] By October Ludolf had confirmed that the czar would remain at Amsterdam through the winter, his three ambassadors serving as his privy council.[77] However, the physical presence of the czar did not mean that he would be easy to reach. The Prince of Orange, King William III of England, was reportedly pleased with an audience he had with Czar Peter, and he intended to return to the Netherlands in the spring of 1698. The ambassadors of Hanover and Saxony were granted audiences as well, and they perceived the czar to be a man of "solid judgment."[78]

But aside from these isolated intrusions, the czar took his incognito masquerade seriously. He "has so much the sea at Heart," explained Ludolf, that "he is always locked up in the places where the vessels are being built, working himself as a carpenter, so he is nearly impossible to approach." Putting his own hand to tools and wood, the czar worked "as if he has to win his bread by that."[79] Early modern heads of state were not typically known for their manual labor, but it had to be acknowledged that the czar had talent. "His skill in building vessels . . . is so advanced that, among the master carpenters, he is second in rank and in pay."[80] Skilled though he was, dirtying his hands with

shipbuilding was conduct unbecoming of a grand duke. The electress Sophie of Hanover had noticed something unusual about the czar. She found him good "by nature and only attributes to education what we find extraordinary." Indeed, Peter had been raised away from the court and during his youth had learned all manner of mechanical crafts.[81]

Ludolf did not blame the czar for the labor in itself, but he did point out that the czar diverted himself with "pleasures that for the most part are not very innocent."[82] It seems the czar had taken a lover. "The Czar has found a Peasant-girl at Saardam," reported another informant, "whom he finds to his liking and where he goes alone in his boat to make love on days off." That informant compared the czar to the Greek hero Hercules, enslaved to Omphale for a decadent year of gender reversal and lovemaking. The Roman poet Ovid wrote that Hercules let Omphale carry his war club and wear the skin of the Nemean lion (he had wrestled it to death in the first of his very masculine labors), while Hercules held a basket of wool beside her spinning maids. "But whether he spins like this Hero next to his mistress," speculated the informant about the czar, "this I do not know."[83] Ludolf suggested that the Dutch were becoming accustomed to the czar's antics. He hoped the czar would not be knocked in the head by a beam in the hard-hat zone. "God forbid that he bring down upon himself some misfortune by the little care that he has for his person."[84]

The czar's mechanical prowess presented an opportunity. What the czar needed was a new best friend. Leibniz envisioned a young man both educated and mechanically skilled who might begin to work with the Dutch and Muscovite craftsmen at the shipyard, "a good and enlightened man who could insinuate himself personally into the good graces of the czar."[85] Leibniz acknowledged drawbacks to his scheme. In addition to cloistering himself away in the shipyard, the fact that Czar Peter did not know any European language only rendered him all the more inaccessible. The rumor of summer that he knew a smattering of *la langue Calviniste* did not mean that he spoke the language with facility, although his off days in Saardam must have advanced his knowledge of Dutch considerably. But Leibniz thought that even without speaking the czar's Russian or Slavonic, "a clever man well versed in mechanics could well insinuate himself beside him. . . . I am certain that if such a young man placed himself among the workers, he would very quickly attract the attention and good will of the Czar."[86] Leibniz's hope here was not to procure knowledge of Asiatic nations for his own purposes; rather, he hoped for someone to gain the czar's confidence in order to assist and encourage him

in enlightening (or debarbarizing) his empire. Frustrated though Leibniz's efforts were in linguistics, it galled him all the more that the Muscovites, despite months of residence in the late seventeenth century's most enlightened city, might take home nothing of profit except a few ships.

Insinuate was the operative term in Leibniz's plan—in French (to H. W. Ludolf), *s'insinuer*; in Latin (to A. H. Francke, a scholar not a courtier), *irrepere*. That is to say, stealth, deception (although benevolent), the implanting of a mole. This is not an uncharitable reading of Leibniz. He was quite clear in his letters about his methods and intentions:

> One very easy and convenient method would be, if someone very energetic and excellent in mechanical practice could insinuate himself into the good graces of the czar himself. For this would not be difficult, as at this moment he is occupied at Amsterdam in constructing his navy. But a suitable person might work on this fabulous endeavor. And once the mind of the czar had been captured and subjugated, everything should be easy both with him and with the Chinese.[87]

Leibniz displays patent dreams of cultural imperialism here. "Two of the greatest monarchs in the world," he told the Pietist August Hermann Francke (and many others—whoever would listen; he had written the same in the preface to *Novissima Sinica*), "desire with incredible ardor to know and to transfer European knowledge into their realms."[88] Those two monarchs were the emperor of China and the czar of Muscovy. And, he pointed out, instead of separating Europe and China, the Muscovite Empire could be the link that connected them: "To win the spirit of one single person like that of the czar or that of the Monarch of China and to turn him toward veritable goods, inspiring in him a Zeal for the glory of God and for the perfection of men, this would do more than if a hundred battles were won; for by the will of such men depend several millions of others."[89] Leibniz was talking about nothing less than the perfection of humankind. He was meddling in grandiose matters far in excess of his job description, but who else would undertake it? Ludolf supposed that theoretically the scheme might be plausible, "but where do we find such a person?"[90] Leibniz suggested that he had had a candidate in mind, but unfortunately the young man had died.[91]

Scheme 2: Magnetic Declination

If the Muscovite court was not accepting favors from western Europeans, then perhaps they would do such a favor themselves. After all, exchange, mutual indebtedness, and gratitude were the glue that held together the international

republic of letters. So Leibniz expressed his grateful indebtedness to correspondents like Magliabechi and Sparwenfeld, just as he was himself a creditor to others.

One possible favor the czar could perform—Leibniz was just throwing ideas out for consideration—might be to map the magnetic declination across the whole of his realm. This was a project of geography; the magnetic poles do not coincide with the rotational poles of the earth. That is, unless one is located on a meridian that runs through both the magnetic north and true north, there is a deviation that must be calculated with regard to one's compass. In the Western Hemisphere at the time of this writing (the earth's magnetic field varies over time) that meridian runs roughly through Duluth, St. Louis, New Orleans, Lima (Peru), and Bahia Blanca (Argentina). Because magnetic north is located on the Canadian side of true north, the magnetic declination in North America is relatively straightforward. So too in Europe, a magnetic meridian of zero deviation passes through Oslo, Bremen, and Bern. But as one moves east across Asia, magnetic declination varies wildly, with sailors navigating the Arctic Ocean above Siberia having to correct their compass readings by thirty degrees or more. Thus Leibniz perceived an opportunity for the czar to contribute to the advancement of science (not personally, but by ordering an expedition that would observe and record magnetic declination at several points throughout the Muscovite Empire). Sailors would understand better where they were on the high seas, and the whole of Europe would be indebted.[92]

Ludolf was nonplussed. The magnetic-declination scheme was no more plausible than the scheme of a mechanical genius insinuating himself into the czar's good graces. Even in the "cultivated nations" (*nations cultivée*) it was difficult to find engineers patient enough to read and calculate magnetic variation with sufficient precision. In Muscovy such persons did not exist at all. "The only thing that could be done to this end would be to furnish them with capable men for the instruction of their youth."[93]

Scheme 3, Part 1: Education of the Golovin Boys

Ludolf reported that of all the persons he had met in the czar's entourage, Theodore Alexeyevich Golovin seemed the most perceptive of the need for European education in the empire of Muscovy. He, at any rate, "seems very disposed to favor the plan to cultivate the spirit of this great nation."[94] From The Hague Ludolf reported that Golovin had left his son and a nephew,

both fourteen years old, in Berlin to spend the fall and winter studying German and Latin. He suggested that their tutor (named Knebel, he thought—Golovin had shown him a letter written in Latin) stood in a position to "perform a very great service to all of Christianity if by a good method he begins to make considerable progress with these two young gentlemen, and at the same time educates their judgment in a manner that animates them to seek the public good."[95] The boys were likely to grow into positions of authority, given the esteem in which Golovin was held by the czar and much of the nation.

Here was a report that Leibniz could use: the son and nephew of the second ambassador spending months in Berlin. Here, slipping away unnoticed, was yet another opportunity to link Europe to Asia. Leibniz hoped the education the boys were receiving was competent. He thought of writing to A. H. Francke and asking him to ask P. J. Spener, in Berlin, to look in on the boys and verify that their tutor was truly capable. Even better would be for Spener to make sure that the elector himself gave an order to that effect. In addition to studying the German and Latin languages, Leibniz suggested, the boys should acquire some mastery of mathematics.[96]

Ludolf's letter reporting on the Golovin boys at Berlin gave Leibniz an occasion to write to the electress of Brandenburg, Sophie Charlotte. At the soirée at Coppenbrügge earlier in the summer, Golovin had enjoyed the performance of Francesco Palmieri and his singers so much that he had asked his Hanoverian hosts for more Italian music. The two electresses, Sophie Charlotte of Brandenburg and her mother, Sophie of Hanover, had ordered copies made of some sheet music and given them to Leibniz to forward to Golovin in the Netherlands. Initially Leibniz had sent them to Pierre Lefort, hoping that he would use them to direct Golovin's attention in Leibniz's direction. That effort had failed. Ludolf had offered to hand the music to Golovin the next time he saw him, so he had another copy of the music drawn up and enclosed it in his October letter to Ludolf, who in turn delivered it to Golovin when they met at The Hague. Ludolf reported that Golovin had asked the musicians in his entourage to perform it at once, but the musicians had declined, saying that they needed some time to practice. Leibniz relayed this report to Sophie Charlotte, assuring her that Golovin had expressed gratitude for the gift. He then informed her that Golovin's son and nephew were in Berlin, gently suggesting that she might look in on their education. This combination of favors would place Golovin deeply in the Brandenburgers' debt.[97]

Scheme 3, Part 2: A Tutor for the Czarevitch

"Without doubt the importance is to furnish to the Muscovites some suitable persons to instruct them," Leibniz explained to Ludolf.[98] In addition to the scheme involving a mechanical genius and the scheme involving the Golovin boys at Berlin, Leibniz embroiled himself in a scheme to implant the European sciences and arts directly into the Muscovite Empire. Friedrich von Walter, a longtime correspondent of Leibniz's at the Danish royal court, considered leaving his position there in order to become the tutor to the czarevitch in Muscovy. Walter had written a letter of application to François Lefort at the beginning of August suggesting the terms under which he would accept an offer. But having received no more in return from Lefort than Leibniz had, he hatched a plan by which he too would attempt to insinuate himself into the good graces of the czar by conveniently showing up at one of the embassy's stopping points on the return journey home. If the embassy returned by sea, then Walter would appear at Copenhagen, where he was already employed. If the embassy returned over land, then he would meet it at Berlin.

Leibniz interceded with the two electresses, who endorsed the scheme, a favor for which Walter expressed "eternal gratitude" to Leibniz. Leibniz wrote him a recommendation letter that included his marching orders. He advised Walter to keep a journal of his time in Muscovy, which Leibniz would be keen to read should Walter get the job and should he find his way back in one piece. "I am interested in your plan because I might find some advantage myself," Leibniz expressed candidly to Walter. "This is because I am extremely fond of all that tends to the general good and I understand easily how it is important to have a person of your merit with the young Prince of Muscovy."[99] In the meantime Walter took up residence with Christine Charlotte of Ostfriesland, whose court, though small, was centrally located between Amsterdam and Denmark. Dutch merchants came through town from time to time, one of whom fed Walter the knowledge that the Muscovites had leased their houses in Amsterdam through the month of May 1698; thereafter they intended to travel to Brandenburg and then return to Amsterdam once again.[100] But after the fall of 1697 nobody's plans would go as intended.

Leibniz Becomes Angry

Leibniz perceived a moment of opportunity in the czar's westward tour. But he also perceived that moment being squandered. It should have been the Dutch, with their merchant fleet and their knowledge of the true religion

reformed, who used the presence of the czar to advance knowledge for the improvement of the nations of Asia. But the Dutch showed little interest in forging a lasting connection that would open up Asia to the best of what Europe had to offer. And despite the rumor from a couple of years earlier, other than the fleet of ships that he was so earnestly building, the czar showed little interest in taking European knowledge or techniques back with him. The Genevan prime minister, François Lefort, would have been the logical conduit by which to transfer European knowledge, but bound up as he was in the minutiae of negotiations, in fact he was useless in this civilizing endeavor. Official channels seeming to produce nothing, Leibniz turned to personal connections instead. Perhaps he himself, plus a few like-minded correspondents, could take up what the Dutch neglected and impose upon the czar what he neglected as well. As he explained to Sophie Charlotte of Brandenburg, "I like almost nothing more in the world than the advancement of these sorts of knowledge, and of all the others that serve to carry further the perfection and light of humankind, and to give us more entrance into the secrets of nature or of God who is its author in order to admire his grandeur and his wisdom."[101]

But such advancement of knowledge leading to the perfection and enlightenment of the human race was not taking place during the czar's stay in Europe. Not only could Leibniz not get any light to shine from Asia but he could not shine any light there either. Watching the moment slip away before his eyes, he expressed to the antiquarian Andreas Morell, at Arnstadt (Thuringia), "You wouldn't believe how angry I am to see how little profit is won despite the presence of the czar of Muscovy and the appearance of good intentions that he puts on."[102] The whole purpose of his *Novissima Sinica*, published earlier that year, had been "to inflame our men to work on the propagation of the true Piety among distant peoples." The negligence of the Dutch and the English, with their merchant marines and trading outposts in the Far East, which could have been employed to launch Protestant missionaries into China and the Indies just as easily as saleable goods were collected, Leibniz found inexcusable.[103]

"A commerce of light" he had called it in 1689, speaking of the promise of mutual exchange between China and Europe. Eight years later he hoped for a "great commerce not of merchandise but of piety and virtue."[104] Unfortunately, the only commerce actually occurring was in the hands of profit-seeking corporations holding state-mandated monopolies for the purpose of enriching their investors and national treasuries. Thanks to the East Indies

Companies, the Dutch were at the height of their golden age, and the English were just beginning their ascent to global maritime power. In the age of absolutism and mercantilism, the quest for profit was usually portrayed under the guise of political "prudence." Leibniz saw only a squandering of resources, a sacrifice of long-term good for short-term gain. "They will pay for it dearly," he predicted of the Dutch and English mercantile states. Others would seize the benefits they neglected. "Every day I discover more . . . that there is nothing so imprudent as impiety, and nothing so conforms to our interests, even here below, than true piety."[105] He acknowledged that there was no immediate profit to be gained from winning the czar's mind, but over the long term the consequences would be enormous. Leibniz had heard that the czar "granted considerable privileges to the Dutch." He asked Ludolf exactly what those privileges meant. "For although these [Dutch] think only of commerce, nevertheless their commerce could lend a hand to other things."[106]

"Lend a hand to other things"—what Leibniz had in mind specifically was the opening of a land route to China. The Muscovite Empire had the potential to link Europe to China. But with the trans-Siberian land route closed, instead Muscovy was an obstacle. Leibniz increasingly saw that a direct assault on the Grand Embassy at Amsterdam stood little chance of success.

The Jesuits of Paris and China

(1689, November 1697–March 1698)

Gerbillon and Golovin at Nerchinsk (1689)

On September 2, 1689, on the north bank of the Shilka River outside the Muscovite fortress at Nerchinsk, seven ambassadors of the Qing imperial court huddled together in consultation in a makeshift camp some three hundred kilometers north of Beijing. No representative from the Muscovite embassy inside the Nerchinsk stockade had yet come over to them that morning. The Chinese worried that they had pushed too hard and broken the fragile peace. The two sides had been in negotiations for twelve days, but for more than a week the ambassadors had been communicating through messengers. Neither side could stand the presence of the other. Both were on the verge of walking away. The line between peace and war was exceedingly thin. For five days, thousands of Chinese soldiers had occupied the highlands overlooking the fortress of Nerchinsk. Deployed in platoons and squadrons, wearing their battle armor, they were ready to attack upon the raising of a battle flag. The Muscovites had far fewer soldiers on site, but inside the wooden stockade they trained fifteen bronze cannon on the Chinese in the hills, small of caliber but long of bore for both distance and accuracy. While the Chinese ambassadors convened in council, the Muscovites were refortifying the interior of the Nerchinsk stockade to prevent the Chinese from entering on horseback, knowing that should the shooting start, the cannon would not hold off the assault for long.

While the Chinese worried that they had ruined the peace, the Muscovite ambassador was writing for his life. Surrounded by a team of interpreters, advisers, and officers from eastern and western European nations—Dutch, English, German, Polish, Ruthenian, plus natives of Transbaikal Siberia—the ambassador of Muscovy drafted an earnest and carefully worded letter protesting his good intentions in negotiating and his empire's sincere desire for peace. The Muscovite ambassador would soon become the governor of all Siberia. His name was Theodore Alexeyevich Golovin.[1]

Both sides were keen to achieve peace. The contested region—Siberia, Manchuria, and Mongolia—was far from the imperial capitals at Moscow and Beijing. Supply lines were very long and logistics very difficult over thousands of leagues of obstacle-laden terrain lacking adequate roads. Full-scale warfare was unlikely in the near term, but skirmishes and raids threatened to wipe out entire platoons, as indeed they already had.

It was a siege at Yacsa (in Muscovite, Albazin), several hundred kilometers downstream, that had brought the two empires to the negotiating table. For a generation, Muscovite trappers had been encroaching on Manchuria. They had invaded three territories that the Oriental Tartars recognized as their own, Nipchou, Yacsa, and Hegunniouma. The emperor had sent several letters of protest but received no response.[2] In May 1683 he had declared his intention to recover Yacsa by sending one of his generals up to the fort on the Saghalien Oula to serve formal written notice and discuss the perceived offense with the Muscovite military governor, Alexei Tolbuzin.[3] "Contrary to all law and reason," as the Qing put it in a later letter, Governor Tolbuzin "immediately took up arms."[4] Compelled to respond in kind, the Chinese general besieged Yacsa, but he had orders from the emperor not to escalate the dispute by killing. By June 1685 the Qing had forced Tolbuzin and his garrison of more than a thousand to surrender, offering what they perceived to be generous terms: Those who wished to retreat to Muscovite territory were permitted to do so and were even furnished horses and provisions for the journey. Tartars in the contingent who did not wish to retreat to Muscovite Siberia were given the option of coming to Beijing. Victorious, the Qing returned to their base camp.

It was not as if the court at Moscow was intentionally encroaching on the Chinese Empire and allowing a latent crisis to fester. Rather, the distances were so vast that even the military governors in central Siberia were unaware of the crisis developing beyond Lake Baikal. Nor was the Muscovite court maliciously ignoring the Qing emperor's letters. Only in August 1685—following the fall of Yacsa/Albazin—did news of the crisis in Transbaikal reach the voivode of the Siberian administrative center at Ienisseisk. The siege finally lifted, Yacsa's governor, Tolbuzin, forwarded the 1683 letters to Ienisseisk. These arrived in mid-August 1685. Three days later, two Cossacks and a merchant arrived in Ienisseisk, having crossed Mongolia from China to Selenginsk. They too carried a packet of letters from the emperor to the czar, six letters in total, two each in Mongol, Latin, and Slavonic. All these letters, along with a report of the news from Yacsa and Selenginsk, the voivode of

Ienisseisk forwarded to Moscow, where they reached the Ministry of Embassies in November 1685. Hearing of the crisis on the far eastern frontier, the Muscovite court flew into action. Within two weeks they decided to send an official embassy, and they dispatched Nicefor Venyukov and Ivan Favorov, both veterans of the Spathari embassy of the 1670s, to announce the advent of a plenipotentiary ambassador. By the beginning of December the couriers were under way, traveling by sleigh up the frozen rivers of Siberia.

The Kangxi emperor could not have known that his letters had finally reached their target. All he knew was that within a few weeks of the surrender the Muscovites had reoccupied Yacsa. Seeing his fortress empty, the humiliated Governor Tolbuzin had seized the site, this time with a vengeance. He cut off hunting trails employed by the Manchus, arrested the hunters, and confiscated their pelts. Supported by a brigade of reinforcements commanded by a German or Pole named Athenasius Beiton, Tolbuzin entered a region known to the Manchus as Houmari, where he ambushed a platoon of forty Tartars and kidnapped one named Kevoutey. So the Qing army returned to arrest Governor Tolbuzin. The emperor hoped Tolbuzin had acted as a loose cannon without the approval of the grand dukes of Muscovy. In July 1686 the Qing laid siege to Yacsa again, this time with rigor. By the end of the month Governor Tolbuzin was dead. Exasperated, the emperor wrote another set of letters in triplicate—Chinese, Latin, and Slavonic. These he sent in the care of an ambassador of the Dutch East Indies Company who was then at the imperial court in Beijing.[5] Leaving nothing to chance and on the advice of his chief astronomer Ferdinand Verbiest, five days later he wrote yet another letter also in three languages—Manchu, Latin, and Slavonic. In order to ensure that this one was actually delivered, he dispatched it in the care of one of his ranking mandarins, a Jesuit from Genoa named Philippe Grimaldi. Unfortunately, as we have seen, those plans did not succeed, and at the moment of the crisis in the Chinese camp outside Nipchou in September 1689, Grimaldi was still in Poland on his way to the Muscovite frontier, where he would be denied a visa to Moscow.

Six weeks after Grimaldi departed, the couriers Venyukov and Favorov arrived at Beijing with the news that the czars were sending an ambassador to discuss peace. By now the situation at Yacsa was grim. Most of the garrison soldiers were either dead of disease, dying of starvation, or mad from scurvy, gangrene, and other complications of malnutrition. Seeking to avoid further loss of life, the emperor called off the siege. He hastily dispatched Venyukov's interpreter, Favorov, along with other officers of the Muscovite

entourage, escorted by some Qing officers, to race by post day and night to deliver the command before the entire garrison was dead. Some few tens of soldiers were saved, but several hundred had died of starvation. In September 1689, then, both sides were acutely aware of the dangerous situation should peace negotiations fail.

Eager as both sides were for peace and mutual recognition, neither side understood the other. The Manchus were offended by the rudeness and arrogance of the deputies the Muscovites kept sending over to them. These deputies were usually young men in their twenties who, while physically attractive, were boorish and aggressive, and they conceded nothing to the Qing. They couldn't even take tea without offending the Manchus' sense of propriety. To make matters worse, they were accompanied by small teams of bodyguards who seemed little better than gangs of thugs. Their Mongol (Eluth) interpreter was "not very intelligent," and his presence did as much to hinder communication as to facilitate it. Eventually the Manchus asked the Muscovites not to send them any more people like these.[6]

The Qing complained that the Muscovite ambassador was late to the meeting. The Muscovites were unapologetic. The Muscovites accused the Qing of murdering two people at Yacsa as their river contingent traveled upstream. The Qing denied any knowledge of violence. The Muscovites accused the Qing of detaining Ivan Loginov, their envoy sent to Beijing the previous May.[7] The Qing laughed at them, saying that the envoy's entourage had been so laden with merchandise purchased at Beijing that their progress could only have been very slow. Far from detaining them, the emperor had provided the wagons to carry their haul. Petty sniping like this poisoned the atmosphere in the weeks leading up to the actual peace discussions.

Golovin's entourage reached Nipchou after the middle of August, nearly a month after the Chinese. Over the course of several days, ranking officers from the two camps hashed out the parameters within which the plenipotentiaries would meet. The Chinese would cross to the north bank of the river accompanied by 40 mandarins plus 760 soldiers. Of those, five hundred would remain on the riverbank, but armed and ready for battle. The negotiating tent, composed of two tents placed together, one from each side, would be equidistant between the Muscovite fortress and the Chinese river barques. Two hundred sixty soldiers would follow the ambassadors to the tent, remaining a certain distance from it. The Muscovite ambassador had an identical arrangement: 40 officers, 760 soldiers in detachments of 260 and 500.

Both sides would be armed only with swords. There were other stipulations as well. "We helped not a little to reassure the spirits of some of our ambassadors," wrote Gerbillon, "who were negotiating for the first time in this sort of affair. Lacking any experience and doubting the good faith of the Muscovites, they feared always that they were setting some kind of ambush. We explained to them what the law of nations was, and we made them hear that the [Muscovite] plenipotentiary had caused some difficulty from the beginning because he himself had trouble believing [in the good faith of the Chinese]."[8] The Jesuits explained the discrepancy in appearing with such a large war machine when their stated intention was to negotiate peace.

After the terms of discussion were established, the Chinese immediately violated them. They crossed the river with 800 soldiers, not the agreed-upon 760, and leaving 500 at the river, they approached the tent with an even 300. Golovin cried foul. In addition to the numbers he counted, he watched the Chinese disembark and deploy in a battle array on the bank above the river. Golovin had understood that the Chinese soldiers would remain on board the river barques. Should the negotiations come to blows, his party would need the crucial few minutes it took for the Chinese to disembark to retreat to the cover of the fortress. The Chinese did not really intend to attack. The seven ambassadors simply feared for their own personal safety. Gerbillon explained again, "Our ambassadors, who had never conducted peace negotiations with another nation, had no knowledge whatsoever either of the customs of other nations or of the law of nations. They had never made any treaty similar to this. Their lack of experience had to be taken into account, if one did not wish to risk breaking off negotiations before they had even begun." The emperor's general in Oriental Tartary had been deceived several times by the governor of Yacsa. How could they expect anything different from the governor of Nipchou? "But we brought them so many reasons," continued Gerbillon, "that they let themselves be persuaded and decided to cross the river and enter the conference."[9]

So on August 22, 1689, at the confluence of two rivers in the vast and disputed territory in either Siberia, Manchuria, or Mongolia, depending on how the two sides would agree to draw the map, an elaborate performance of political theater took place, a production whose only audience was the participants themselves. The Qing put on their best ceremonial robes of silk and brocaded gold depicting the dragons of the Chinese Empire; they were attended by ceremonial lances and the banners of the army. But when they were advised of the pomp with which the Muscovite plenipotentiaries were

coming, the Qing decided to march simply, with no indications of their dignity other than the great silk parasols carried over each of them. The Muscovite corps of 260 marched *en bataille* led by colorfully clad officers. Behind them came a fanfare of five trumpets, a timbal and four or five musettes, accompanied by fifes and tambours, all of which made an agreeable melody to the ears of the two Jesuits.[10] Ivan Vlasov, the governor of Nipchou, was part of the delegation, as was the deacon of Ienisseisk, Simeon Kornitskoi, plus an officer of the Muscovite chancellery.[11] At the head of this show of pomp was Theodore Alexeyevich Golovin, plenipotentiary high ambassador of Czars Ivan and Peter. He was superbly clad in a robe of gold brocade, a mantle or casaque also of gold brocade, and a *doublé* of the blackest, most beautiful sable Gerbillon had ever seen. "It would certainly go for more than a thousand *écus* at Beijing." The floor of his tent was covered with Turkish rugs. His tablecloth was a tapestry of Persian silk and gold, and on top of this he set his papers. The Qing required no table but seated themselves on a large bench with no other ornamentation than the cushion the Tartars always carried when they traveled. Other officers seated themselves on the ground "in the Oriental fashion."[12]

So apprehensive were the parties that neither wanted to speak first. The Muscovites offered a written set of demands. The Chinese refused to look at them. Both parties agreed to set aside offenses of the past and all petty concerns in order to work exclusively on the crucial matter of establishing a border between the two empires. In fact, Golovin had already accomplished a lot: he had obliquely asserted the legitimacy of the Muscovite Empire in several letters, and in their responses the Qing—who tended to look down upon the Muscovites as yet another hoard of northern barbarians[13]—had tacitly conceded that empire's existence. At issue in the present conference was the river on which they met—in Tartaric, Saghalien Oula, in Slavonic, Onon Amour—the great black dragon that took its source in the highlands of northern Mongolia (as the Onon) and in the mountains east of Lake Baikal (as the Khilok and Ingodo, branches of the Shilka), gathered strength as it absorbed major tributaries like the Argun, the Zeya, and the Sungari, and ultimately disgorged itself into the Pacific Ocean through a mouth that Gerbillon was told was some four of five leagues across. The river was navigable by large boats for more than five hundred leagues. Ambassador Golovin proposed that river as the boundary between the two empires. Everything to the north would belong to Muscovy; everything to the south, to China.

The Qing rejected this proposal outright. For them the river was no boundary. The river was a unifying force for similar communities on both sides. The Jurchen tribes, which had dwelt in the forests of the lower Saghalien Oula basin before they formed the Manchu confederation in the late sixteenth century, still had many towns and highly populated lands north of the river. The mountains where they hunted sables were beyond the river also. They proposed instead that the Muscovites withdraw to Selenga, the colony the Muscovites had built of forest timber in the 1650s. The Manchus insisted that the towns of Nipchou and Yacsa, together with their territories, be relinquished to the imperial Qing dynasty, their rightful owner. As an alternative, the Qing suggested that the Muscovites pay tribute to China, just as the Occidental Tartars did. Golovin responded that these territories belonged by right to Muscovy. Working in Oriental Tartaric interpreted into Chinese and Latin and then into Slavonic (and vice versa) was a cumbersome process. The spelling out of these initial positions took all afternoon. As evening approached, the two sides shook hands and departed.

The next day, August 23, the Muscovites dispatched a deputy to invite the Qing back to the table. Again both sides spent a long time insisting that the other speak first. Eventually Golovin broke the ice by asking the Qing precisely which territories on the north bank of the river they considered their own. Nipchou, they responded. That is, the very ground on which they sat and where the Muscovites had trespassed to build a fortress. Golovin insisted that his empire wanted no conflict but asked the Chinese to please offer a reasonable response. Neither side would budge from its position, and the meeting adjourned coldly.

Up until this point the Jesuits apparently had served as interpreters for the negotiations. This was what they were tasked to do and why they were part of the Qing ambassadorial delegation. In Golovin's delegation was a Pole named Andrei Belobotski, educated at the University of Cracow, who spoke clear and easy Latin. He could render the discussion into Old Church Slavonic, while Gerbillon and Pereira could render it into Chinese. But the Manchus were not happy with the way the conference was going. They detected an affinity between the Europeans, and in particular they distrusted the confidence Golovin seemed to place in their Jesuits. So to change the dynamic, they switched the language of negotiation to Mongolic. Being Tartars themselves, they understood Mongolic and could speak it reasonably well. In this way they could use their own words to present their position. This gave them

a clear advantage over Golovin, who had difficulty understanding precisely what the Manchus meant, despite having two Mongol interpreters in his entourage.

The Jesuits, aware that they had been cut out of the proceedings, were keen to recover their position in the Chinese ambassadors' favor. They tried to regain the ambassadors' confidence by saying that they doubted the Muscovites would cede Yacsa and part of the land between there and Nipchou. They offered to cross the river alone and enter the Muscovite fortress under the pretext of explaining what the Chinese had meant the day before. The Jesuits' strategy worked. The ambassadors agreed to send them the next day, informing them of the absolute final boundaries to which they, acting under the emperor's express orders, could consent.

On August 25 the Chinese were just about to send the Jesuits into the Muscovite fortress when a Muscovite envoy arrived and declared that the negotiations had reached an impasse. If the Chinese had any further proposals, they should put them in writing. Otherwise the two sides should draw up a report of their failed efforts for their respective sovereigns. The Chinese detected a bluff, so they called it. They had already made their proposal the previous day: Nipchou. Since the Muscovites were so committed to the written word, they could put their demands in writing first. The Muscovite deputy stuck to his talking points and requested a conference in which letters could be presented simultaneously. As on the first day, the Chinese refused to commit their position to writing. Rebuffed, the Muscovite envoy departed. Shortly thereafter, the Jesuits followed him into the fortress.

"The Muscovites, who desired peace as much as we," wrote Gerbillon, referring to the Manchus in the first-person plural, "testified to be very relieved by our arrival." He and Pereira warned Golovin that if his party refused to cede the fortress at Yacsa, then any further discussion was pointless, as the Qing delegation had a specific mandate from the emperor not to make any treaty without that condition. For his part, Golovin had received amended instructions from Moscow authorizing him to cede Yacsa, but only on the condition that the Muscovite fortress be destroyed and the site left unoccupied.[14] Regarding the Yacsa hinterland and the north bank of the Saghalien Oula from there up to Nipchou, the Jesuits were not certain where the Qing wished to place the border, but they were certain that the Qing would do everything to obtain a treaty of peace. Golovin sent the Jesuits back to the Chinese camp with the message that Golovin wished to know their final proposal.

The Jesuits did not know the geography of the north bank of the Saghalien Oula, but the Manchus certainly did. When a Muscovite envoy came over to the Chinese camp the next day to obtain that final proposal, the Qing ambassadors pulled out a map depicting precisely where they intended to place the border. How Leibniz would have desired that map! A minor river called the Kerbetchi (in Slavonic, Gorbitsa) emptied into the Saghalien Oula thirty or forty leagues downstream from Nipchou. The source of the Kerbetchi was in a mountain range that the Manchus called the Hinkan. The Hinkan range spanned the Saghalien Oula, which cut a gorge through the mountains. South of the Saghalien Oula the Hinkan range divided the Manchurian forests from the Mongolian desert. North of the river, the Hinkan ran northeastward as far as the Sea of Okhotsk and the Pacific Ocean. The Kerbetchi's source was in this northern extension of the Hinkan range. The Chinese proposed that the Kerbetchi mark the boundary between the two empires. Downstream from the Kerbetchi, everything in the Saghalien Oula watershed—from the Hinkan ridge down to the Saghalien basin—was rightfully theirs. That entire region, they claimed, had been illegally occupied by the Muscovites. As for the south bank of the Saghalien Oula, the Qing ambassadors showed the Jesuits and the Muscovite deputy another tributary of the Saghalien Oula called the Ergoné (or Argun). The Ergoné River flowed into the Saghalien Oula about another thirty or forty leagues below the Kerbetchi, or about seventy or eighty leagues below Nipchou, where they presently stood. The Muscovites could have everything west of the Ergoné River, including Nipchou/Nerchinsk; the Manchus requested only that they stop before they reached the Khalkha nation in the Mongolian desert, since the Khalkhas had recently entered Chinese protection as a tributary nation. The Muscovite deputy, accompanied by the Jesuits, crossed again to the fortress of Nipchou to relay the message to Golovin, this being the last and best offer from the Chinese embassy.

Golovin found these demands completely unacceptable. In their previous exchange, the Chinese had asked only for Yacsa. Now they proposed placing the boundary in a region—Khalkha—that they did not even control. Moreover, the Muscovites had already built colonies east of the Ergoné River, and they were not willing to give them up.

The next day the Qing proposed a solution to the Ergoné colonies: tear them down. Golovin was infuriated. Confronted by proposals that became more aggressive every time the Jesuits arrived with a new message, Golovin dug in his heels. He pulled out a map of his own and drew a boundary on it. He conceded Yacsa, on the northernmost loop of the Saghalien Oula, but

nothing beyond. This was his final resolution, he declared. The Muscovites would not budge from this final offer "and will not cede one more inch of land."[15] The Qing were negotiating in bad faith, he said. Negotiations had reached an impasse; any further discussion was pointless.

The Manchus responded by convening a war council. If the Muscovites did not wish to resolve the dispute peacefully, then they were prepared take back their territory by force. The main force would cross the Saghalien Oula that night. A detachment of a hundred men would go downstream by boat to join another battalion of four or five hundred who were standing by near Yacsa.

The Muscovites, seeing movement in the Qing camp across the river, sent their interpreter over to insist on their peaceful intentions. Again the Muscovites asked the Qing to put their demands in writing, and again the Qing refused. What would be the point of making another proposal when the Jesuits had already delivered their final proposal the day before? The interpreter reported that the Muscovites had intended to cede Yacsa, but now, faced with Qing obstruction, they withdrew that offer. If the Qing wished to make a new proposal, the interpreter had instructions to receive it in writing.

But the Qing had already given their final proposal the day before. They too insisted that their intentions were peaceful, but they warned the Muscovite interpreter that if his side had anything further to say, they had better say it that night. The Muscovite interpreter suggested that the Qing send the Jesuits again the next morning. The Chinese responded that this would be pointless, since they had nothing further to say. The interpreter departed, promising to return in the morning himself bearing a final proposal from the Muscovite side.

The Manchus continued mobilizing in preparation for deployment across the river, but that same evening the Muscovite interpreter returned. His message: Golovin was prepared to return to the negotiating table; he might even agree to abandon Yacsa. Some of the Qing ambassadors dismissed the new offer as a ploy to gain time and to derail their military action. But another faction of the ambassadors—there were seven in total on the Chinese side—pointed out that once they crossed the Rubicon, they would have committed an act of war and all chance for peace would be scuttled. The emperor, they feared, would be displeased that they had ruined the negotiation.

Thus divided among themselves, the Chinese ambassadors turned to Gerbillon and Pereira for advice. Each side attempted to persuade them of the prudence of their plan. But the Jesuits refused to enter any discussion

involving military action, saying that their priestly profession forbade them from engaging in such affairs. The ambassadors sent a counterorder to call off the detachment sent to burn the crops at Yacsa, but too late; they could not catch them. The rest of the camp spent the whole night mobilizing to cross the river.

At dawn on August 28, Muscovite deputies arrived with yet another offer: they would cede Yacsa to China on the condition that the fortress be razed and not rebuilt. They offered to recognize the Ergoné River as the imperial boundary as long as the population east of the river remained theirs. "In a word," wrote Gerbillon, "they consented to nearly everything that was most essential in the propositions of our Ambassadors before they broke off negotiations." The Muscovite deputies insisted that the Jesuits be sent back across the river "to put the final hand to this work."[16] But the Manchus refused!

The Muscovites arrived too late. The Qing army had already crossed the river and was taking up positions on top of the ridge that looked down on the town and fortress of Nipchou. Faced with this new offer, the Qing told the deputies that their crossing was not actually an act of hostility; they were merely seeking higher ground because their campsite was flooded. It is true that in his journal entry from a few days earlier Gerbillon mentioned the swelling of the Saghalien Oula because of consistently heavy rains. South of the Great Wall there was drought in China; a few months after they returned, the Jesuits would give the emperor lessons in meteorology and climatology to explain the phenomenon. But in northern Manchuria and Siberia there was plenty of rain. In 1812 the Russian Empire would move the entire city of Nerchinsk from its original site at the confluence of the Nercha and Shilka Rivers to a point seven kilometers upstream to avoid the frequent floods. But at this moment, the Manchus told the Muscovite deputies that if Golovin really wished to accept the conditions they had proposed, they should wait an hour or two, until the Qing had finished moving the camp across the river.

Two hours later, no one from the Muscovites had returned. The Qing dispatched the Jesuits. They followed the military crossing set up about three leagues below the fortress. There were soldiers everywhere—in barques on both sides of the river, in the valley at the foot of the mountains, at the tops of the mountains within sight of Nipchou, and still there remained plenty in the original camp to guard the embassy's baggage against any eventuality. Soldiers occupied the peninsula formed by the confluence of the Saghalien Oula (Shilka) and Nipchou (Nercha) Rivers. The Muscovites had marshaled everyone into the fortress except for a rear guard to watch the Chinese. The Jesuits

mounted horses and rode with the ambassadors to the base of the mountain, a quarter of a league from the fortress, passing on the road several more squadrons of troops in battle array, "armor on their backs."[17]

They were within sight of the fortress when the Muscovite deputy caught up with them. He had gone to the original camp only to discover that the ambassadors had already left. He bore the resolution of the Muscovite plenipotentiaries, who had consented to nearly everything the Chinese ambassadors demanded concerning the border between the two empires. Only a few minor details had to be worked out. The Muscovite deputy requested that the Jesuits be sent over to conclude the matter.

But the Manchus did not trust the Muscovites, whom they suspected of bluffing, toying with them, stalling or prolonging the negotiation in order to gain time to prepare the fortress for defense. Only after much urging did the Qing permit one Jesuit—Jean-François Gerbillon, attended by a few servants—to enter the Nipchou fortress. Tomé Pereira, the Portuguese Jesuit, remained with the Qing entourage.

The Manchus perceived correctly that the situation they had provoked was truly dangerous. Gerbillon counted fifteen cannon plus a mortar in the street of the Nipchou fortress, and Muscovite soldiers were indeed using the remaining time to refortify the interior of the fortress. Undaunted, the French monk deputized Chinese approached the nobleman who answered for what was undoubtedly the largest single territory on earth, Siberia. Golovin explained what he offered. Gerbillon explained what the Qing intended in their offer. They discussed the lines on the map until each was certain that the other understood his position. When their discussion concluded, they discovered that they had reached an agreement. Gerbillon's news brought much rejoicing and relief to the Chinese camp. More importantly for the Jesuit mission, thanks to Pereira and Gerbillon's efforts, the priests rose considerably in the ambassadors' estimation. "Our Ambassadors began to recognize the fault that they had done to us in not giving enough credit at the beginning of the negotiation; and since this day they honored us with all their confidence," wrote Gerbillon.[18]

Now began the task of drafting the agreement in writing. Golovin asked the Qing to create the document, and here again the Jesuits sprang into action. A day was spent working out particularities in the wording, envoys shuttling between the camps. It took another day to draw up a version in Chinese, and then the entire night to translate the document from Chinese into Latin, a copy of which they presented to Golovin.

The Muscovite team carefully parsed the wording of the treaty. The river boundaries were clear enough: the Ergoné/Argun entering the Saghalien Oula/Amur from the south and the Kerbetchi entering from the north. But when the Qing claimed the mountains from which the Kerbetchi took its source and thus the Saghalien Oula watershed, exactly which mountains did they mean? There were two mountain ranges in question. One ran nearly due east, more or less parallel to the northern loop of the Saghalien Oula. This was what the Muscovites had understood to be the border. Another mountain range ran northeastward, its name transliterated from Manchu as Nossé. This was what the Manchus understood to be the border. Between these two mountain ranges was a vast region of many rivers, the most significant of which was the Oudi, flowing from west to east and entering the Sea of Okhotsk north of the Amur River delta. The Muscovites had several colonies on the banks of the Oudi. This was also the place where they found the most precious sable, blue-fox, and other furs. On the shores of a lake in this region between the mountains, they also caught large fish whose teeth were harder and more beautiful than ivory and that were also valuable to the Tartars. The Qing ambassadors said that they had intended the Nossé range to be the border. The Muscovite deputy who had come to clarify the matter said that he did not think his side would ever agree to that.[19]

So it was on September 2 that the Chinese ambassadors huddled in council, worried that they had pushed too hard and possibly ruined the peace to which they had come so close. For five days they had been on the brink of war, thousands of soldiers looking down on the small garrison in the stockade near the river. Once again the ambassadors appealed to the Jesuits for advice. Drawn into the balance between peace and war, Gerbillon and Pereira found themselves in a position no less awkward than that of the ambassadors. The Jesuits explained to the Qing ambassadors that because of their priestly profession they could not address strategy, not even to give advice. That said, the Jesuits did not believe that the Muscovites would agree to the Qing demand for the Oudi River valley. This was because when they had discussed the boundary between the two empires, the Qing had not mentioned the Nossé range. Nor did the Jesuits think that the Manchus understood the how far it was from Beijing to the Nossé mountains. The Manchus were very surprised when the Jesuits told them that it was more than a thousand leagues. But the Jesuits had seen this clearly on the Muscovites' map. According to Gerbillon, Muscovite

cartographers depicted the mountains as meeting the ocean at a latitude of nearly 80° north.

Nineteenth-century geologists would identify the mountains in question as a series of ranges that were formed at different periods in the earth's history and under categorically different circumstances: the Xing'an Ling in its several extensions, Greater (Da, a Jurassic formation), Lesser (Xiao, recent from the Quaternary), plus the Outer Hinggan range (Wai Xing'an Ling), north of the Amur River, which Russians know as the Stanovoy range. The Stanovoy range separates the Lena and Amur Rivers, which flow to the Arctic and Pacific Oceans, respectively, but on the Pacific side the Stanovoy is abutted by a series of ridges (the Dzhugdzhur range) running parallel to the Sea of Okhotsk that look like contiguous mountains but in fact belong to different mountain-building events. To modern observers equipped with satellite imagery and schematic topographical relief maps, the locations and extent of these ranges are evident enough. But to Tungusic trappers and the diplomats who held jurisdiction over them from very distant Moscow and Beijing, these were obscure locations and probably not worth bloodshed, at least not in 1689.

So the Qing asked the Jesuits to enter the Nipchou fortress one more time in the hope of jumpstarting the negotiations and at least dividing the Oudi River valley between the two empires. That region had been their ancient homeland, said the Chinese Tartars, and they said it with a conviction that indicated that they really believed it. But such was the hazard of a nomadic existence. The Tungusic Jurchen, forming alliances as they migrated south into a confederated nation that became the Manchus, had overthrown the dynasty south of the Great Wall and made themselves masters of the richest empire on earth. But in doing so, they had abandoned their ancient homeland. The wildlife population had flourished in their absence, and the few indigenous trappers remaining there had reaped the harvest. Unfortunately for the Manchus, those trappers now served a different master.

The Jesuits were on the verge of departing for Nipchou when a Muscovite envoy, mounted and guarded by a detachment of Mongols, appeared and delivered a letter of protest from Golovin. Golovin stated to the Qing ambassadors the sincerity with which he had proceeded in the negotiation. He described the intentions he had shown in concluding a peace; he said that he had ceded to the Qing all that he possibly could and lamented that the Qing now demanded a region that they had not mentioned before either in their

emperor's letters or in negotiations. He called God as his witness that the Muscovites were not trying to dispossess the Manchus but only sought to make peace. To that end, the Muscovites offered to leave the Oudi River valley with matters unresolved and in neutrality. But if the Qing persisted in their demand to claim it outright, then the Muscovites called on heaven and earth as witness that their side was not the cause of war nor of the blood that would be spilled. Muscovy would not be the aggressor if peace were not reached, but the Muscovites would defend their possessions if attacked, and they summoned the protection of God, who recognized the righteousness of their intentions. The Jesuits explained the letter, which was carefully crafted in eloquent Latin, to the Qing ambassadors of China.

"This protestation," wrote Gerbillon, "had on our Ambassadors the full effect that the Muscovites could have hoped. They were already badly shaken, as I have remarked. So they responded that, like the Muscovites, they too were strongly inclined toward peace, toward which they wished to bring from their side every imaginable effort."[20] It being late in the day, they told the Muscovite envoy that the Jesuits would appear at Nipchou the next morning.

Both sides badly wanting peace but finding themselves frightfully close to war, negotiations proceeded swiftly in the following days. They agreed that the boundaries would be the Ergoné and Kerbetchi Rivers and the ridge of the Stanovoy Mountains. (The Chinese province on the north bank of the Saghalien Oula corresponds to the modern Amurskaya Oblast of the Russian Federation.) They agreed to leave unresolved the question of which empire would hold jurisdiction beyond the Stanovoy; the Oudi River valley would remain neutral territory. The Muscovites wanted the Yacsa fortress to be dismantled and not rebuilt, and although the Chinese had no intention of rebuilding it, they saw no point in putting that stipulation in writing. The Muscovite colonies east of the Ergoné River would be moved to the western bank. Boundary markers would be inscribed in stone in Latin, Slavonic, Chinese, and Oriental and Occidental Tartaric. These terms agreed upon, on September 6 Gerbillon sat down with Andrei Belobotski, the Polish Latinist in the Muscovite entourage, and together they crafted the written treaty. By the end of the next day they had two copies, identical except for the headings: the exemplar directed to Moscow bore the names and titles of the Chinese ambassadors; the exemplar directed to Beijing bore the names and titles of Golovin and his entourage. Before the ink was dry, the plenipotentiaries on both sides robed themselves in their ceremonial dress and met again in

the tents of negotiation to sign and exchange the documents. The military band of Muscovy played a fanfare. Joint parties were dispatched to Yacsa and the Ergoné valley to remove the Muscovite colonies from those places. As an act of good will, the Muscovite governor of Nipchou released two Tartars of the Solon nation who had long been imprisoned in his fortress. The Treaty of Nerchinsk would govern the boundary between the Muscovite and Chinese Empires for the next century and a half.

Both sides agreed to remain on site for another day to enjoy the fruits of peace. Even as they exchanged gifts and shared tea, the deep gulf between the customs and expectations of the two sides was evident. When Golovin, as first ambassador, presented some gifts (furs, of course) to Sosun laoyé (Songgotu), as first ambassador, Tong laoyé (Tong Guogang), the emperor's maternal uncle, took great offense since he was equal in rank to Sosun. Once again the Jesuits mediated. They explained to Tong laoyé that the ambassadors should consider the gifts as presented to all of them in common; moreover, the gifts all were symbolic gifts to the emperor.

The stress of the negotiations behind them, Golovin chatted easily with the Jesuits. He related news from Europe and in gratitude for their mediation promised to put in a good word on behalf of the Jesuit house in Moscow. He introduced them to a German in his entourage, an army colonel and a good Catholic. The German was ill and wished to receive confession. But since the French and Portuguese Jesuits did not know German and the military man did not know Latin, they confessed him by sign as if he were on the verge of death. Golovin presented the Jesuits with a few sable pelts, which they would carry to Beijing, where, when the opportunity presented itself during an audience, they turned them over to the emperor himself. What were impoverished monks to do with private property? And anyway, by law no one was permitted to wear sable fur in China unless the emperor had presented it to him. The Jesuits—and also the ambassadors—stood to gain more by turning over the gift furs than by keeping them.

Indeed the Treaty of Nerchinsk was as much a victory for the Jesuit mission in China as it was for the Chinese and Muscovite Empires. "It must be confessed that God has favored us particularly in this occasion," wrote Gerbillon,

> and that he has so much arranged these things that without our entering into a great negotiation little suited to our vocation, we have so well managed this

affair and so well revived the negotiation, nearly entirely broken off two or three times, that finally this peace is happily concluded, in such a way that no one, from the Ambassadors down to the last soldiers, wouldn't acknowledge that the success was due to us, and that without us, this peace would never have been made.

In effect the minds on both sides were so full of defiance, the genius, the manners, the customs of the two nations so different, that only with difficulty could they convene together; such a force of protests and demands, that we didn't consider either side capable of ceding anything. The very chief of the Muscovite Plenipotentiaries promised us that he will give testimony to the grand Dukes his masters, for the good offices that we gave to them, giving us hope that in view of this service, he will protect and favor our Company in that Empire.

Moreover the chiefs of our Ambassadors have done us the same justice. For having sent two of their Officers to the Emperor in order to give him account of what has passed in the course of this negotiation, ordering them to tell His Majesty that without us, an affair so important would never have been concluded, and that they were indebted to us for success.[21]

The Jesuits of China drew a direct link between the successful mediation by Pereira and Gerbillon at Nerchinsk and the imperial edict of 1692, which granted them complete freedom to proselytize throughout the Chinese empire. Through the winter and spring of 1690, back in Beijing, Pereira enjoyed frequent audiences with the Kangxi emperor, as he and Antoine Thomas tutored the emperor in Euclidean geometry. Gerbillon and Joachim Bouvet were tapped by the emperor to become experts in his native Tartaric language. Already fluent in Chinese, Gerbillon had learned the rudiments of Tartaric (i.e., Manchu), but lacking opportunities to use it, his progress had remained limited. So the Kangxi emperor organized an immersion course for Gerbillon and Bouvet, first having them sit as ex-officio members on a palace tribunal whose language of business was Tartaric, then sending them north to Grand Tartary in 1691. The emperor hoped that when he had achieved fluency in Tartaric Gerbillon would translate the whole of European philosophy into the emperor's native language. So useful were these European priests that the emperor sent Bouvet to France to bring more of them to China. Bouvet was under way for nearly four years, from July 1693 until March 1697, when he finally reached France. He stayed only a year before heading back to China. In the meantime, the director of missions in

Paris put him in touch with a certain German with a persistent curiosity about China and Grand Tartary.

There were Europeans with specific knowledge of Asia of precisely the kind Leibniz sought. Already in 1689 Leibniz had identified the Jesuit order as the best repository of that knowledge. The problem was how to tap it. Even though he had a reasonably extensive network of correspondents in Italy and France, the Jesuits with whom Leibniz remained in correspondence had no direct access to the men of action who worked on site in central Asia and the Far East. The fact that there was a German serving as a ranking officer in Golovin's far eastern army was no help to Leibniz. He knew that hundreds, possibly thousands, of western Europeans worked in the czar's empire, and many of those were not limited to the administrative centers but worked on the frontiers among the indigenous peoples about whom Leibniz was curious. But several barriers prevented communication between the men of action and the man of letters: secrecy, whether Jesuit or Muscovite; language, as between the German colonel and the Jesuits; distance—how would one send a letter even if one knew what to write?

But all these could be overcome. It was no miracle that Leibniz's letter caught up with Grimaldi at Goa, nor was it a miracle that Grimaldi's letter made its way back to Hanover, even though the round trip took a very long time. The miracle, if there was one, was that Leibniz succeeded in communicating to Grimaldi what he wanted and that Grimaldi was in a position—geographically, intellectually—to respond. Most of the time, these links in the chain of knowledge were missing. Sometimes the sources of knowledge that he expected to find did not exist, such as Petrarch's Cumanic dictionary, Magliabechi's Tartaric account of a caravan on the Silk Road, or Sparwenfeld's suffering quarantine twice in a failed quest for the tomb of Huneric the Vandal in Tunisia.

A scholar has a sense of where to look for the knowledge he needs, such as in the book of charters from the Carceri monastery, where Leibniz hoped to find some reference to the genealogy of Azzo of Este. Sometimes he lucks out and actually finds the item he is looking for, for example, the tomb of Cunegunde of Altdorf. More often he finds something that he did not expect but might be able to use anyway. This might explain why Leibniz's linguistic inquiry was such an abject failure that it derailed his planned second preliminary dissertation to *Origines Guelficae*. Instead of gathering what knowledge

was actually available, he searched and searched for knowledge that he thought must exist but in fact did not.

Leibniz and Joachim Bouvet (November 1697–March 1698)

How angry would Leibniz have been to know that in the Prikaz des Ambassades (the predecessor of the Ministry of Foreign Affairs) at Moscow stood an official report from four years recently spent in the Siberian Transbaikal, comprising some 1,261 manuscript pages, by Golovin. Golovin, who passed through Lower Saxony in 1697 and remained at Amsterdam for a year and a half but would not share a single word of what he knew with Leibniz.[22] Or that Spathari's instructions, journal, and correspondence, together with his secretaries' notes, were there in some 167 manuscript pages.[23] And the papers of Spathari's former secretaries, Venyoukov and Favorov, who returned to China in 1686 as couriers to announce the advent of Golovin, in another 158 pages. Leibniz did manage to acquire, through J. J. J. Chuno and Johann Reyer, an extract of Adam Brandt's recollection of the Dane Elizar Isbrandt Ides's expedition from 1691 to 1695; but whereas Brandt's recollection comprised a total of about ten pages, the official journal in its autograph original countersigned by Isbrant Ides himself was fifty-two manuscript pages.[24] But neither the Muscovites' knowledge of Asia nor the Jesuits' knowledge of China was available to Leibniz despite the tremendous literary effort he put forth for more than a decade to acquire it. Given the quantity of knowledge that existed and the inaccessible manner in which it was archived, Philippe Avril's accusation that Muscovite Siberia was a top secret withheld from anyone not in Muscovite direct employ bears a certain plausibility. At least so it must have seemed in the 1690s.

Thus, when Antoine Verjus, coordinator of Jesuit missions at the court of Louis XIV in Paris, put the French Jesuit of China Joachim Bouvet in touch with Leibniz at the end of 1697, it must have seemed like something of a breakthrough. Joachim Bouvet knew Jean-François Gerbillon well. They were two of the six Jesuit mathematicians recruited by Philippe Couplet in 1684 and financially supported by a special grant by King Louis XIV. Together Bouvet and Gerbillon had been admitted to the French Academy of Sciences and supplied with mathematical and astronomical instruments. Together they had departed Brest in March 1685 and traveled for two and a half years to Macao and Canton in the Far East. When they finally reached Beijing in February of 1688, three of the remaining five (Guy Tachard had been dropped off in

Siam)[25]—Jean de Fontaney, Louis Le Comte, and Claude de Visedelou—were granted liberty to evangelize in the provinces of China. Bouvet and Gerbillon were retained at the imperial court in Beijing. Only four months after arriving, Gerbillon was on the road again, this time to Selenga, teamed with his Portuguese colleague Tomé Pereira, as an interpreter in the negotiations with Muscovy.

A.I.14, ##358 and 359, Joachim Bouvet to Leibniz and Antoine Verjus to Leibniz, 18 October 1697

Within weeks of Bouvet's arrival in France in the spring of 1697, Leibniz's little collection *Novissima Sinica* reached Paris. Leibniz had earmarked a copy for an orientalist at the Sorbonne named Louis Picques, a specialist in Coptic and Arabic who corresponded with Hiob Ludolf.[26] Picques did not publish much during his career, but he was a famous collector of antiquities, a voracious reader, and—like Leibniz—an excellent correspondent. When Picques met the Jesuit recently returned from the Far East, he lent him Leibniz's little volume. At the royal court, Antoine Verjus and others told Bouvet of Leibniz's reputation as a scholar in mathematics and law, as well as of Leibniz's growing curiosity about things Asiatic. So in October 1697 Bouvet sent Leibniz a work of his own about the res gestae of the emperor of China, whom he knew so well.[27]

Lacking a modern parcel service, Bouvet could not send his essay directly to Leibniz, so instead he gave it to Antoine Verjus, who then gave it to Christophe Brosseau, the Hanoverian resident at Fontainebleau, and from Fontainebleau it could be shipped to Hanover. Verjus took the opportunity to enclose a note of his own in order to remind Leibniz of his existence and to curry his favor with an enticing introduction: Bouvet, recently returned from China, was to return in a few months' time, and he more than anyone was in a position to send Leibniz specific knowledge of the Chinese sciences. Verjus related Bouvet's Chinese résumé: three or four years of continuous travel and study by order of the emperor (the emperor having thus deputized him as an envoy back to France); daily audiences with the emperor lasting three or four hours on the European sciences; books authored by Gerbillon and Bouvet at the emperor's request published in both Chinese and Tartaric, both of them having to learn Tartaric in order to accomplish such. Verjus expressed the hope that the flow of curiosities from China would soon increase since maritime commerce would once again be free as a result of the peace of Rijswijk. He indicated that he would send more and more missionaries in the coming

years, envisioning that soon there would be more true Christians in China than there were in Europe.[28]

Immediately upon receiving the little package from Bouvet and Verjus in November, Leibniz broadcast the news of his contact with the Jesuits of China to his network of German scholars. To Tentzel at Gotha he reported that his *Novissima Sinica* had been well received by his Jesuit audience. Better yet, if Tentzel had questions about things Chinese, Leibniz now stood a good chance of getting them answered.[29] This he repeated to Hermann von der Hardt, adding that it was on account of his "moderation" that Protestant Leibniz had won Jesuit approval for *Novissima Sinica*. Leibniz invited Hardt too to submit questions for Bouvet.[30] Leibniz's letter to Adam Kochanski, the Jesuit of Poland, is lost, unfortunately, but from Kochanski's response in December we know that Leibniz invited him to ask questions about China of his Jesuit colleague. Kochanski responded with a set of twenty-six questions on subjects ranging from the Chinese language to Chinese history, geography, the mechanical and fine arts, tea, the climate, tropical fruits, and back to language again.[31] Kochanski mentioned to Leibniz that he had written to Grimaldi again; he had given his letter to an imperial envoy to Moscow, who would have it sent with the next merchant caravan to Beijing.[32] Kochanski also took the opportunity to address Joachim Bouvet directly now that Leibniz stood as intermediary. That letter has not been found, of course, for Leibniz forwarded it to Fontainebleau.

At the beginning of December Leibniz sent Bouvet a list of what he desired from China. In a long letter filling two complete sheets front and back, Leibniz expressed to Bouvet what he had suggested to Grimaldi five years earlier and what he had been repeating ever since: in addition to an immediate need for particular knowledge of China, an ongoing mutual exchange of knowledge would be beneficial to both the Chinese and Europeans. A sudden infusion of knowledge from the two poles of Eurasia could revolutionize both societies. "Perhaps we could give them as if all of a sudden and by a kind of infusion, our knowledge; and for our part we could learn from them also all of a sudden a world of new notices that, without this, we would not receive in I don't know how many centuries."[33] But the exchange must be mutual. Leibniz feared that the Jesuits' giving away European knowledge with nothing in return might eventually place the Chinese in a superior position. But these general hopes and fears were mere speculation. Europe needed immediately specific kinds of knowledge, and Leibniz was certain that that knowledge was already in Jesuit hands.

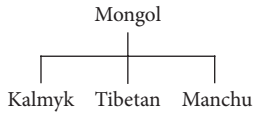
First, and the tallest order, the entire Chinese *historia literaria*. This would be a critical bibliography that organized the entire Chinese circle of learning. A work of *historia literaria* was like a massive annotated bibliography. It did not contain the knowledge itself, as a modern encyclopedia does, but instead directed the reader where to turn for every sort of knowledge. In the seventeenth century as in the twenty-first, there were far too many books, the majority of them bad, so the task of a *historia literaria* was to point out the best or most important ones on any given topic. A tall order, to be sure, and maybe Leibniz was presumptuous to have demanded such a thing from Grimaldi in 1692 as he worked his way arduously east. But when Bouvet indicated that Charles Le Gobien would be publishing a fuller account of the Chinese edict of toleration as well as notices and select translations of some three hundred books Bouvet had brought back to France,[34] Leibniz must have felt justified in his request.

The next item on Leibniz's list was Müller's *Clavis Sinica*. The way to learn Chinese might be through a dictionary and a grammar like those for any other language, but Leibniz seemed to remember Grimaldi indicating something about a direct pictographic link between signified and sign in the Chinese language. Uncovering such a link had been Müller's project, which was why Leibniz was so disappointed to learn that Grimaldi had passed right by Müller without bothering to meet him. In any case, a precise dictionary, grammar, and samples of Chinese writing with interlinear translations were crucial to Europeans' ability to decipher the language.[35]

Leibniz also pitched his own project for Tartaric languages. Having no hope of learning these as well as Chinese, Leibniz would be content with samples. As he repeated so many times during the 1690s, this meant Pater Nosters and also basic vocabularies. To be usable they should include a transliteration in some known (European) language and an interlinear translation. Initially he asked for samples from all the peoples neighboring China, but then he specified that the Tartaric languages of central Asia—those spoken north of China, India, and Persia—were chiefly of interest to him. His goal was to gain "light concerning the origins and migrations of peoples."[36] The eastern and southern languages—of Korea, Japan, Siam, Burma, and the Indies—would come in time. A basic grammar and vocabulary of each Tartaric language would be ideal, but at the very least even a Pater Noster with an interlinear translation offered some means for comparison. "Moreover this will serve, that every tongue might praise the Lord."[37]

Bouvet himself, Leibniz knew,[38] could render the Pater Noster in the language of the Manchus (or as Leibniz termed them, "the Tartars of China"). He asked for this in order to compare it with the version of "the Tartars a bit further west, who are commonly called Mogals or Mugals."[39] Just a couple of weeks earlier he had received the two versions worked out by H. W. Ludolf and Nicholas Witsen with Golovin's Mongol servant. He mentioned the presence of Golovin in Holland, and he showed Bouvet that he knew of Gerbillon's role at the Treaty of Nerchinsk. Witsen had told him that the Mongol language was "very close" to the Kalmyk language.[40] "I am therefore impatient to learn whether that of the Tartars of China is also close to that of the Mugals."[41] A Manchu Pater Noster translated by the Manchu-speaking Bouvet was the one piece he needed to complete this part of the puzzle.

Mongolic in fact seemed to hold promise as the key to the origins and migrations of nations.



Kalmyk in the west, Manchu in the east. Ludolf had told Leibniz that the Tibetan language and script were used by the Mongols on account of the Dalai Lama in Tibet.[42] Was Tibetan related as well? Add to this equation the factor of the term *Marah*: identified by Grimaldi and the king of Poland and found in German and Old French, it did seem significant that even if all languages did not share a common origin, at least one word seemed to have infiltrated from one end of the continent to the other.[43]

In addition to languages, European scholars needed a chronology of the Chinese dynasties in order to determine whether they existed before the Septuagint account of the Creation. "This must be done with all possible good faith without disguising anything," Leibniz admonished, without mentioning the Jesuits by name. In any case, surely any discrepancies between the Chinese and Old Testament chronologies could eventually be reconciled.[44] Ultimately Leibniz wanted the complete history of the Chinese arts and sciences: law, religion, mathematics (did they have something like the Pythagorean Theorem? if so, was it indigenous or acquired through commerce?), conversation, sociability, virtues, duties, speculative and applied mathematics, geography

(what did Bouvet think of Witsen's map?), physics, medicine, theology, and spiritual matters.

> So far I have told you what I hope we will have over time. But it would be good nevertheless if we were to procure in advance some samples of these things: the Pater at least of the languages, some Chinese versions with a grammatical analysis, some tolerable dictionary, some proofs of their chronology, some good orders, inventions, observations and curious experiences. And since something of these has already been brought, I would like to receive some notice of it and hope also for the future.[45]

That is, the Jesuits could be doing a much better job of using their privileged position for the advancement of learning by communicating the knowledge they already possessed. Needless to say, the first item in Leibniz's list of desiderata was language samples.

A.I.14, #472, Leibniz to Antoine Verjus, Hanover, 2/12 December 1697

In the package with Kochanski's twenty-six questions about China and his own two-sheet letter to Bouvet, Leibniz enclosed a separate letter to Antoine Verjus thanking him for brokering the exchange with Bouvet. "This mission is the most important affair of our times," insisted Leibniz, "both for the glory of God and the propagation of the Christian religion and for the general good of men and the increase of the sciences and arts among us as well as among the Chinese. For this is a commerce of light that we could give all of a sudden to their works of several thousands of years, and to bring their works to our own, and to double, so to speak, our true riches on both sides. This is something greater than one can imagine."[46] He hoped the import of this mutual commerce of light would excuse the inordinate length of his epistle to Bouvet.

In addition to the new knowledge to be sent from China in the course of time, Leibniz knew that there must have been a cache of reports from the Jesuit mission already in Verjus's hands. He promised Verjus that he would not abuse them. Just as he had requested of Bouvet, he asked Verjus specifically for knowledge of geography in China and the surrounding lands, Tartaric languages (analysis as well as data samples in the form of interlineated Pater Nosters), the *Clavis Sinica* (as an analysis of Chinese characters), a critique of the ancient Chinese chronology, and descriptions of useful techniques in the arts and sciences. "I would hope that you could charge some friend with the care to give me such information as may already be in hand."[47]

Leibniz had already sealed the letters to Bouvet and Verjus when Kochanski's questions for Bouvet arrived. The post coach just about to depart, Leibniz dashed off a hasty cover note, evidently with no time to record his own copy. Bouvet referred both to it and to Kochanski's questions, so we know that the letter reached him.

Days later, Ezechiel Spanheim arrived from Berlin bearing Chuno's last, desperate letter and also specific news of the fall of Danckelman. With Chuno's letter were pages of Verbiest's Tartaric grammar, obtained somehow from the Brandenburg judicial counselor Johann Gebhard Rabener (1632–1701), as well as Rabener's own set of questions for Joachim Bouvet. Given the length of his first, exhaustive letter, plus the afterthought covering Kochanski's questions, Leibniz hesitated to send Bouvet a third letter. Besides, Chuno's letter had mentioned a nicely bound copy of Christian Mentzel's *Chronology of China*. Menzel, a physician in Berlin, was Germany's second authority (after the late Andreas Müller) on things Chinese and even knew some of the language. But that volume was not in Spanheim's mailbag, and Spanheim had no knowledge of it. Maybe it was coming under separate cover.

Now that Leibniz had the attention of a real, live Jesuit come from China and on his way back, Leibniz was not yet finished. In January 1698 an attaché of the French diplomatic mission at the Polish court passed through Berlin and Hanover on his way to Paris. The diplomat, whose name was La Rosière, happened to be acquainted with Bouvet; they must have met before 1685, when Bouvet initially sailed for China. So Leibniz seized the opportunity to write a third time to Bouvet. Mentzel's luxury edition not yet having arrived, Leibniz gave his personal copy of the book to La Rosière to carry to Bouvet. He also took the opportunity to remind Bouvet of his number-one priority, which should have been very easy for the Manchu-speaking Bouvet to fulfill: he asked Bouvet to do him the singular favor, before Bouvet left Europe, of sending the Lord's Prayer in the language of the Chinese Tartars, "with an interlinear version word for word."[48]

Excursus on Politeness in Correspondence in the Republic of Letters

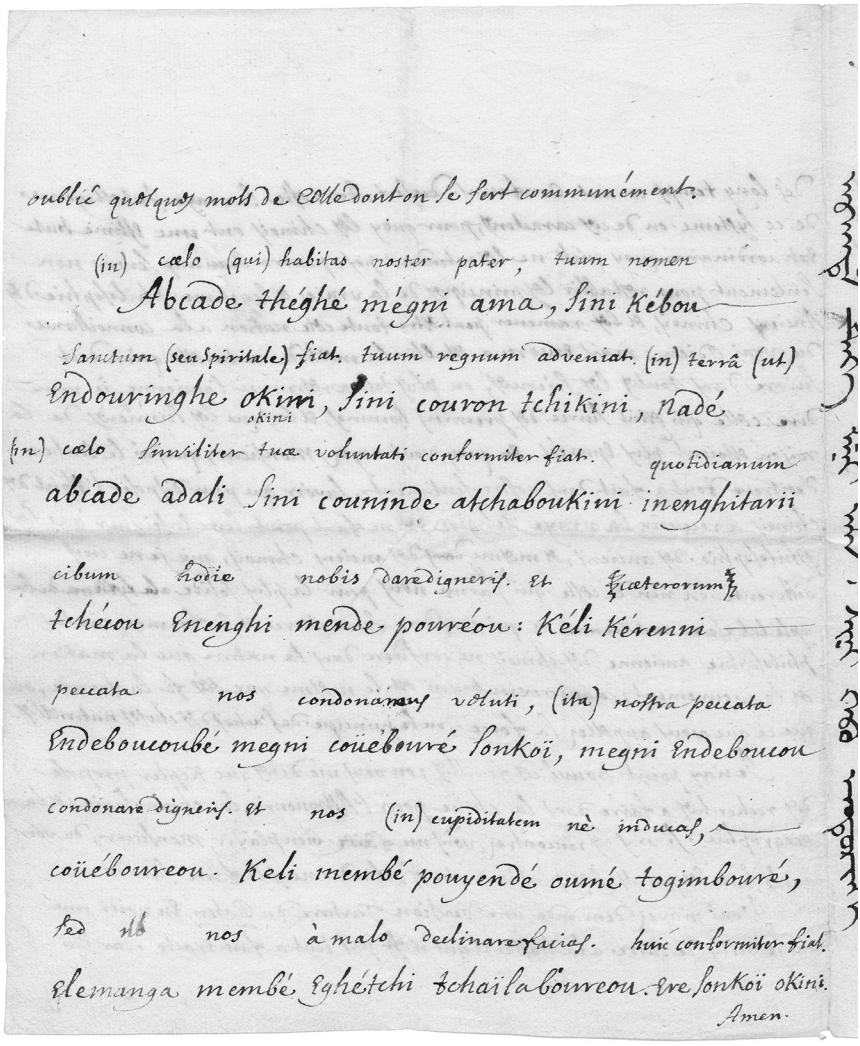
In the letter carried by La Rosière, Leibniz acknowledged that Bouvet must be very busy with preparations for the return voyage. "So I must not be a nuisance to you," he wrote.[49] This line offers a little window into the functioning of the republic of letters. First, it was the recipient who performed the favor. To write to someone was an honor, as if the recipient wanted to hear from the author. The author was the servant—this sentiment was not only formulaic.

Second, time was in short supply. Too long a letter was considered burdensome. When Leibniz filled two full folio sheets, front and back, with requests, ideas, and instructions to Bouvet, he had to apologize for it at the end of his letter. Similarly he was apologetic to Sparwenfeld when he acknowledged that he was adding bagatelles upon bagatelles—which were in fact central to his own linguistic project even if they were marginal for Sparwenfeld. Third, despite such apologies, imposing on others required a great deal of time. Even if one had the luxury of a personal secretary to whom one could dictate a letter, it took some time to figure out what to say. The draft version had to be corrected, and then a final presentation drafted in secretarial hand. Many of the manuscript drafts at the Leibniz Archive bear corrections in Leibniz's own hand, and even though he employed a personal secretary, many other manuscript drafts are entirely in Leibniz's hand, meaning that he sat at his desk with pen and paper himself. Finally, there was the obligation to follow up. Leibniz's fear of being a nuisance to Bouvet with that third letter from mid-January 1698 turned out to be a red herring. La Rosière did not find Bouvet before Bouvet departed Paris to meet his ship at La Rochelle. The letter never reached its destination; Leibniz's personal copy of Menzel's *Chinese Chronology* ended up who knows where.

Nuisance indeed. Two weeks later Leibniz wrote to Bouvet yet again.[50] The occasion was a letter from the physician of the imperial court at Vienna, Lucas Schröck. Schröck directed the medical department of the Academia Leopoldina and was himself a practicing physician. In a belated response to Leibniz's November 1697 call for questions about China, Schröck submitted a memoire of a dozen questions on Chinese medical practice. The intended recipient was a German physician and botanist named Andreas Cleyer, who had been working for years in Batavia (on the Indonesian island of Java) for the Dutch East Indies Company. Cleyer had published a herbarium of Chinese plants, as well as a book on Chinese medical practice and anatomy. Schröck had left his letter unsealed and invited Leibniz and Bouvet to read it. (Leibniz copied Schröck's memoire before forwarding it to Bouvet, which is why we know its contents.)[51] Schröck hoped that Bouvet's ship might stop in Batavia en route to China. If it did, would Bouvet kindly deliver the letter to Cleyer? Leibniz quipped to the electress Sophie Charlotte of Brandenburg, who was becoming his new patroness, "I'm putting a sign on my door with the words, 'Bureau of Address for China.'"[52]

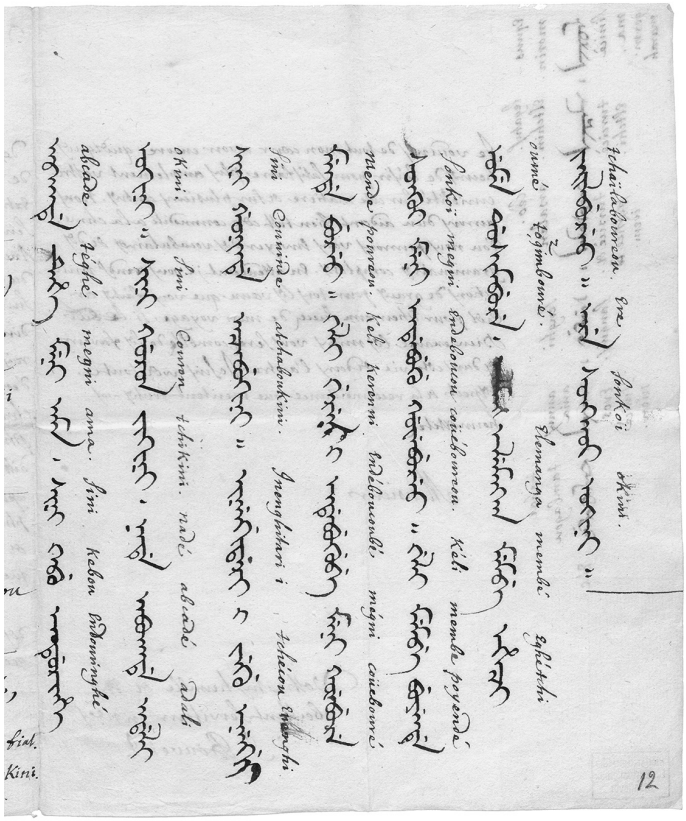
For his own part, Leibniz added a request for information about Chinese mining techniques. He asked Bouvet to greet for him the fathers Grimaldi, "of whom I know something," and Gerbillon, whose purloined letter he held. He prayed that God would preserve Bouvet on the hazardous voyage, and he reminded him yet again, "If it is possible, I would hope for a Pater in the Tartar language before your departure."[53]

Four letters in less than three months! Flattered by Leibniz's interest in the Jesuits of China, Bouvet wrote Leibniz a long response from the docks at the Atlantic port of La Rochelle. Bouvet assured Leibniz that the scholarly program he had proposed in December had already been undertaken by the Jesuits of China on their own initiative. Claude de Visdelou (1656–1737), one of the French Jesuits recruited by Philippe Couplet in 1685 who had sailed to China in the same cohort as Bouvet, had emerged as the Society's expert on the Chinese language (as distinct from Manchu Tartar). He was presently at work on a dictionary and grammar of the Chinese language. He and his colleagues were analyzing the composition of Chinese characters, a complicated project but one that Bouvet believed would be completed eventually. He speculated that Chinese characters might be reduced to their essential elements, similar to what had been accomplished with Egyptian hieroglyphs. (This was still a century before the Rosetta Stone and a century and a quarter before the code was cracked. Nevertheless, a great deal had been learned about ancient Egypt through the systematic examination of its hieroglyphs by seventeenth-century scholars.) European missionaries had determined that Chinese writing was truly ancient, existing even before Noah's flood.[54] Bouvet knew something about the earliest Chinese system of writing, a system of little horizontal lines, whole and broken, that was attributed to an ancient sage named Fu Xi (in French, Fo-hii). If there was a *clavis Sinica* in Andreas Müller's sense, it would be found here. Knowledge of this system, "a marvelous ediface" representing "in a very simple and very natural manner the principles of all the sciences," had been lost long before Confucius (ca. 500 BC). The Chinese held these ancient characters in "a very extraordinary esteem because they do not understand them." Bouvet saw here a way to convert the entire Chinese nation to Christianity: through the Jesuits' investigation of their ancestors' earliest system of knowledge. Conversion to Christianity would be less a conversion to something new than a restoration of "the true and legitimate philosophy of the Ancient Chinese and to restore, possibly this whole nation to the knowledge of the true God." Bouvet invoked a kind of


oublié quelques mots de celle dont on se sert communément.
(in) cælo (qui) habitas noster pater, tuum nomen
Abcade théghé mégni ama, sini Kébou
Sanctum (seu spiritale) fiat. tuum regnum adveniat. (in) terrâ (ut)
Endouringhe okini, sini couron tchikini, nadé
okini
(in) cælo similiter tuæ voluntati conformiter fiat. quotidianum
abcade adali sini couninde atchaboukini inenghitarii
cibum hodie nobis dare digneris. et cæterorum
tchécou Enenghi mende pouréou: Kéli kérenni
peccata nos condonamus veluti, (ita) nostra peccata
Endebouconbé megni coüébouré sonkoï, megni Endebouconou
condonare digneris. et nos (in) cupiditatem nè inducas,
coüébouréou. Keli membé pouyendé ouné togimbouré,
sed ab nos à malo declinare facias. huic conformiter fiat.
elemanga membé eghétchi tchaïlabouréou. ere sonkoï okini.
Amen.

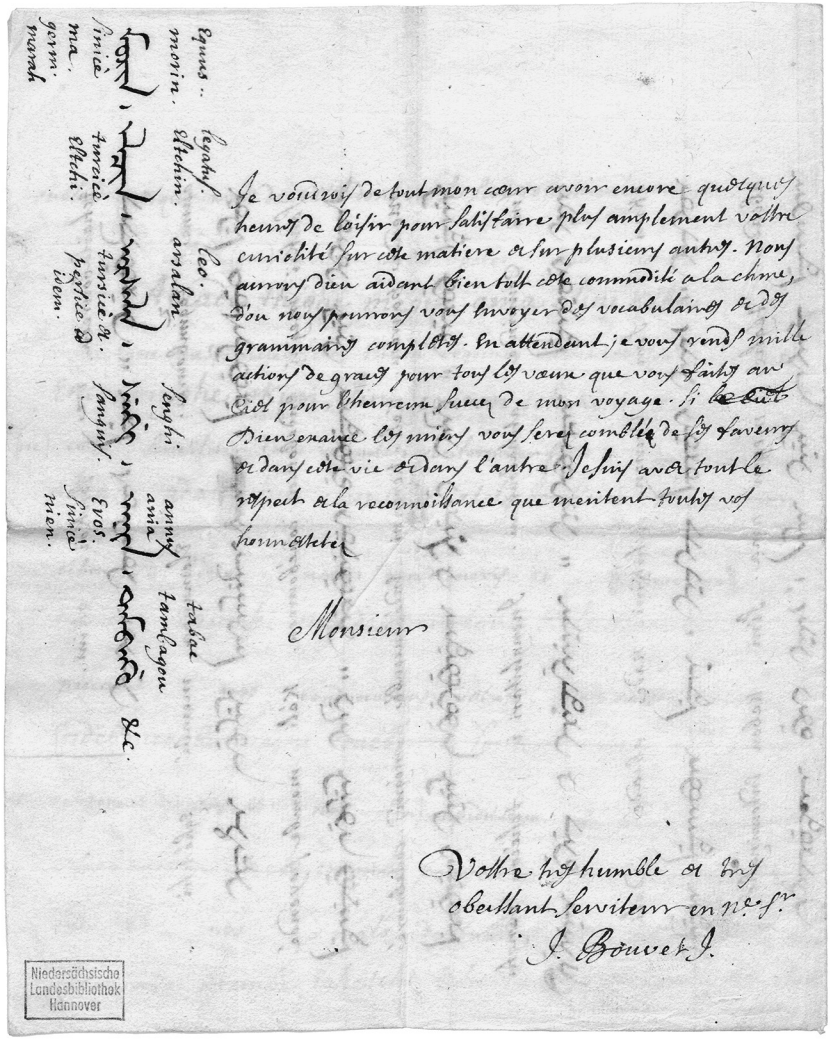
Bouvet's Manchu Lord's Prayer, transliterated. Joachim Bouvet transliterated the Lord's Prayer phonetically into Latin characters. The corresponding Latin terms are interlineated above the Manchu. (Gottfried Wilhelm Leibniz Bibliothek—Niedersächsische Landesbibliothek, Hanover, LBr. 105 Bl. 11v.)

philosophia perennis when he described the ancient Chinese sciences as belonging to a period "when the lights of reason were the most clear [*le plus epurées*]."[55] In any case, Bouvet assured Leibniz that they shared a common goal in advancing the sciences and the propagation of the faith.



Bouvet's Manchu Lord's Prayer. In Joachim Bouvet's version of the Lord's Prayer in the Manchu language, the Manchu script reads in vertical columns from left to right. (Gottfried Wilhelm Leibniz Bibliothek—Niedersächsische Landesbibliothek, Hanover, LBr. 105 Bl. 12r.)

Bouvet also assured Leibniz that the Jesuits of China were aware of the crucial matter of the Chinese chronology, which seemed to predate the Old Testament. Far from shrinking away from a potential conflict of traditions, the Jesuits were attempting to establish the Chinese chronology by investigating the whole Chinese *historia literaria*, just as Leibniz had proposed: civil history as a kind of ethnology (*ante nomen*) including customs, laws, politics, the arts, mathematics, and medicine; also natural history, including a treatise on the Chinese herbarium and anatomy that sounded similar to the work of Andreas Cleyer at Batavia. This latter treatise Bouvet had brought to the Royal Library of France, and a translation had been left with Charles Le Gobien.[56]



Manchu vocabulary. On this last page of A.I.15, #238, Joachim Bouvet to Leibniz, La Rochelle, 28 February 1698, the Manchu script in the margin reads vertically from top to bottom with the terms for *horse*, *envoy*, *lion*, *blood*, *year*, and *tobacco.* Immediately to the right, the Manchu is transliterated into Latin characters; and to the right of that, it is translated into Latin. Persian, Turkish, and Chinese terms are to the left. Notice at the top term (*horse*) the cognates in Latin (*equus*), Manchu (*morin*), Chinese (*ma*), and Germanic (*marah*). The French text promises vocabularies and grammars once Bouvet reaches his destination, plus a request for prayers for a successful voyage. (Gottfried Wilhelm Leibniz Bibliothek—Niedersächsische Landesbibliothek, Hanover, LBr. 105 Bl. 12v.)

Bouvet promised Leibniz that he would write brief letters to each of the men who had sent him questions through Leibniz—Menzel, Schröck, and Kochanski. He would not have time to provide detailed answers to their questionnaires, but he told Leibniz that Antoine Verjus had deputized Charles Le Gobien as a full-time writer charged with publishing the notices and reports sent from missionaries in China and the rest of the Orient. From then on, said Bouvet, all memoires would be addressed to Le Gobien. Le Gobien had a very sharp mind, Bouvet thought, and he was under instructions to send Leibniz advance copies of all the reports he published from then on.

Finally, before he sailed, Bouvet had one other item for Leibniz: the Tartaric Pater Noster. In the native script, transliterated into Latin characters and translated word for word between the lines, the version was precisely what Leibniz had requested. Lacking a Manchu dictionary in France, Bouvet admitted that he had forgotten some words that would commonly have been used, but he appended in the left margin a brief list of a few words: *horse*, *envoy*, *lion*, *blood*, *year*, and *tobacco*. Above the Manchu script he placed a transliteration, and above the transliteration a Latin translation. Below, he placed cognate terms in Chinese, Turkic, and Persian where he knew them. Leibniz would have seen that the first term, *Equus* (horse), in Manchu was *morin*, confirming what he had learned from Grimaldi as reported through Kochanski back at the beginning of his linguistic project. *Mare* in English, *morin* in Oriental Tartaric, and *ma* in Chinese—the term was shared across the entire width of the Eurasian landmass. Bouvet pointed out that the Manchu term for *leo* (lion), *arsalan*, was the same in both Turkic and Persian. Leibniz could now compare the Lord's Prayer in Oriental Tartar with the versions he had received in Occidental Tartar from Nicolaas Witsen and H. W. Ludolf.

A week later the French merchant ship *Amphitrite*, a royal frigate of forty cannon with a crew of 150, was under way for China, carrying Bouvet, eight other French Jesuits, and a painter from Baroque Italy at the request of the emperor of China. Although they got under way a month later than Bouvet had wanted, given the favorable wind, he hoped that they might still catch the summer monsoon, which would push them across the South China Sea before the end of August.[57] Unable to navigate the Strait of Sonde, between the islands of Sumatra and Java, they were compelled to detour the length of Sumatra and pass through the Strait of Malacca instead, which delayed the voyage by seven weeks. Still, by mid-October they were anchored in the Gulf of Canton, and by the beginning of November 1698 Bouvet was on shore, heralded as a returning ambassador of the emperor of China.[58]

The Foundations of Modern Historical Linguistics

(1697–1716)

Seventy-five years after Leibniz's death, August Ludwig Schlözer credited Leibniz with establishing the linguistic foundation of Schlözer's new science of ethnology (*Völkerkunde*). It was through the empirical study of their languages that the peoples of central Asia and the North could be identified and distinguished. And it was Leibniz, stated Schlözer, who had effected "a total transformation" in the methodology of identifying the nations of the Asiatic North and, indeed, of the whole world.[1] The methodology of early modern humanists had been to seek the origins and relations of nations by parsing the statements of ancient authors. But it was Leibniz who had pointed out that annalists, whether from antiquity or from the Middle Ages, were inadequate sources of knowledge. Instead one should read lexicographers and grammarians. To compare indigenous vocabularies and grammars represented "an entirely new point of departure, a completely different source" that reduced the reading of classical historians like Tacitus, Herodotus, or Jordanes to a supplemental or auxiliary role.

To Schlözer, the problem with ancient and medieval authors was that each region and each nation could be described with three different labels: geographical, political, and historical. For example, Icelanders were described geographically as Scythian or Norse, politically as Danish, and historically as Germanic. Manchus were described geographically as Scythian (or in modern eighteenth-century terminology, Tatar), politically as Chinese, and historically as Manchu. The solution to such inconsistency and confusion was a formal taxonomy on the model of Linnaeus's *Systema Natura*. Schlözer proposed a *Systema Populorum* organized according to classes, orders, genera, and species.[2] Where Linnaeus had classified plants and animals on the basis of stamens and teeth, Schlözer proposed classifying the nations according to language. "This is what Leibniz insisted upon so frequently and forcefully," wrote Schlözer in 1768, "but almost nobody heard him."[3]

Unfortunately, as we have watched Leibniz discover and as Schlözer himself understood very well, a serious inquiry into Asiatic languages required real rigor. In the whole of historical research, Schlözer knew of no method more arduous, more exhausting, than to establish people groups on the basis of their languages. To deduce general conclusions from a word or two abstracted from context was not valid. That kind of strategy was a pitfall into sheer Rudbeckianism, which would delegitimize the method. The only solution was to work inductively by collecting data and examples. But to find linguistic data, collect vocabularies, and compare them required patience and perseverance. All too often one's efforts paid off only in the coincidental discovery of similarities or differences between groups that the researcher had not anticipated. To dabble in "barbarian" languages only to scoop out similar words or syllables here and there and then to derive general principles from the coincidence "is not Leibniz's method in ethnography."[4]

Suzanne Marchand has shown that during the nineteenth century the study of Oriental languages was the ugly stepsister to the more fashionable study of classical Greek and Latin, known as philology.[5] Schlözer agreed that this was the case, and he would have been dismayed at how long orientalism would continue to suffer a kind of academic persecution. As if scholars of Semitic languages were not already marginalized, the plight of those who might specialize in the languages of northern Asia was even worse. Schlözer pointed out that the classical European education founded on the study of so-called learned languages unwittingly left scholars with a sense of revulsion against the languages of the nations that existed in darkness, or at least were dark to European scholarship. Even if those barbarian nations were to produce books in their indigenous languages, European scholars would not see them as contributing anything to the advancement of learning. Outside a few open-minded "great men"—Schlözer named Leibniz specifically along with Nicolaas Witsen, the St. Petersburg orientalist Gottlieb Siegfried Bayer (1694–1738), and his own mentor at Uppsala, Johan Ihre (1707–80)—almost no one knew that Lapp, Samoyed, and Kalmyk were languages to be studied. "It simply is not the fashion!"[6]

In fact, as Schlözer acknowledged, even late-eighteenth-century scholars were a long way from developing a comprehensive catalog and taxonomy of the peoples of northern Europe and Asia. One would have to establish what kinds of sources constituted legitimate evidence, such as the relative authority of grammar, vocabulary, and ancient testimony (to say nothing of religion

or economic mode of life). Methodologies would have to be established as well. In short, just as Linnaeus developed a *philosophia botanica* as he worked out the taxonomy of the world's plants, so too would a *philosophia ethnographica* be necessary, lest through a shoddy performance some Rudbeck, some Pezron, some Goropius Becanus ruin "this great Leibnizian project."[7]

To credit Leibniz with establishing the methodology (historical linguistics) that would form the basis of a new science (ethnology) is a serious charge. It is worth asking where Schlözer encountered Leibniz. The answer: at St. Petersburg and Göttingen. From 1761 to 1767 Schlözer worked closely with the linguistic and ethnographic data being assembled by the Imperial Academy of Science at St. Petersburg. By then Russia's knowledge of its subject peoples in Siberia had advanced fifty years from where it had been during Leibniz's lifetime. Beginning in 1707 with D. G. Messerschmidt, who had learned Russian at Halle from Leibniz's correspondent H. W. Ludolf, and continuing with the Bering and Great Northern expeditions (the first and second Kamchatka expeditions, 1725–30 and 1733–43), the collection of vocabulary lists from the peoples of Siberia was formalized as an integral part of the St. Petersburg Academy's survey of Russian territories in the North and the Far East. While Leibniz's engagement with the court of Czar Peter is well documented, unfortunately we lack a document that confirms his specific influence on Russian imperial or academic orders. However Philipp Johann Tabbert von Strahlenberg, the Swedish officer who spent years in Siberia as a prisoner of war, wrote that many of the difficulties regarding the origins and migrations of Siberian people could be resolved by following Leibniz's linguistic method. And it was the case that the historiographer of the Great Northern Expedition, G. F. Müller, was charged initially with collecting Lord's Prayers in Siberia, even if he shortly abandoned that method as unserviceable among pagan peoples.[8] At St. Petersburg in the 1760s, Schlözer worked closely with Müller himself, with Müller's assistant J. E. Fischer, and with the entire library of documents and artifacts housed at the Imperial Academy of Science. Perhaps Schlözer became aware of Leibniz's linguistic interests there.

Upon his return to Göttingen in 1767, Schlözer encountered a revival of contemporary interest in Leibniz having to do with much more than just historical languages. In the 1750s, finally, an edition of *Origines Guelphicae* was published under the direction of Christian Ludwig Scheidt. Scheidt's edition even included Leibniz's two preliminary dissertations, *Protogaea* (1749) and *The Origin of the Germans* (1750). This second preliminary dissertation looks

like what Leibniz had in mind when he organized his project in 1691, but in Scheidt's edition it was much further advanced than what Leibniz himself had managed to accomplish. J. G. Eckhart (d. 1730) put another fifteen years of work into the question of European origins and migrations, and it was Eckhart's version that Scheidt published.[9] At about the same time, in 1755, A. B. Michaelis edited Leibniz's correspondence with Hiob Ludolf.[10] Then in 1765 a librarian at Hanover found and edited the hitherto unpublished manuscript of Leibniz's *New Essays on Human Understanding*.[11] Finally, in 1768 a French Huguenot turned English diplomat stationed at Turin, Louis Dutens (1730–1812), who spent just over a year assembling essays and correspondence from scholars and libraries across Europe, published six quarto-sized volumes of Leibniz's *Opera Omnia*.[12] Thus, by the time Schlözer returned to Göttingen from St. Petersburg, the Leibniz revival in Enlightenment-era popular philosophy was in full swing.

When Schlözer warned that the legitimate method of linguistic comparison might be rendered ridiculous by some Rudbeck, Pezron, or Goropius, he seems to have been drawing on Leibniz's rhetoric in three sets of documents that Dutens published in volumes 4 and 6 of the *Opera Omnia* edition.[13] In order to see what Schlözer was reading, let us shift our point of view back to Leibniz, now approaching the end of his life and trying to draw some conclusions from these endless linguistic inquiries.

"Brevis disquisitio" (1697)

In the midst of the chaos of the autumn of 1697—his desperate attempt to contact the Grand Embassy of Peter the Great; the debacle of the Treaty of Rijswijk; Danckelman's fall from grace, nearly taking Chuno as well; and the beginning of the plan for Protestant Union—Leibniz sat down once again, as he had in the summer of 1695, to take stock of what he had learned regarding the origin of the Germanic peoples. In June 1697, Sparwenfeld had put young Eric Benzelius in Leibniz's care; he had arrived bearing a characteristically full letter from Stockholm and a substantial package of books.[14] Benzelius reached Hanover in August 1697, and Leibniz would soon forward him to Johann Andreas Schmidt for matriculation that fall as a student of theology at the University of Helmstedt. But before Leibniz sent Benzelius on his way, he pumped him for information about Sparwenfeld (whom Leibniz would never meet in person); about Ludvig Fabritius's embassies from Stockholm to Isfahan, conveying him through many languages of Grand Tartary;[15] and about Gothic origins as commonly understood in Sweden.

To Leibniz's surprise, the Gothic-origins hypothesis, which he had been debating with Sparwenfeld since 1695, was more widespread than he supposed. Evidently Leibniz did not acquit himself very well in the Germanic-origins conversation with Benzelius. Benzelius had ticked off a variety of evidence supporting the Gothic hypothesis; Leibniz, who considered the reverse—that Scandinavia was settled by Germanic speakers from the continent, and not vice versa—more likely, realized that he had never really sat down to organize his specific reasoning. So he pulled out three folio sheets, folded them in half, and started writing. Eleven pages and thirty paragraphs later, he had a more coherent account of why he considered it more plausible that the Swedes were a subsidiary branch of the Germanic nation than that the Germans were an offshoot of the ancient Goths. His evidence was threefold: geography, or the route of migration from Asia to Europe; place-names, especially names of rivers, which tended to remain constant even when the inhabitants of a region changed; and linguistic sets, what nineteenth-century comparative linguists would term *language families* and eighteenth-century ethnologists (following the Linnaean model of taxonomy) termed *classes* but Leibniz termed *genera* (sing., *genus* or *gens*), translated here as "nation."[16]

First, linguistic sets. The first step was to identify the major people groups in Europe. Here linguistic affinity was the key to establishing relationships. Leibniz identified two principal national types in northern Europe and Scandinavia, Finno-Lapp and Germanic. In some ways the discussion of the Finno-Lapp group is the most creative part of the essay, coming at the end as a confirmation of the order of migrations that he established by other means. The Finno-Lapp discussion will be touched on later.

The bulk of the essay addresses the Germanic nation. Linguistic affinity indicated that the Germans, Teutones, Suevi, Goths, Vandals, Swedes (or Sueiones), Saxons, Franks, Alemanni, Angles, Danes, Normans, "etc. were peoples of the same nation [Lat., *genus*]."[17] Leibniz restated to himself what we have seen repeatedly in the preceding chapters, that there was "no method for identifying national affinities more certain than language."[18] In this 1697 think piece, written only for himself, Leibniz did not assemble much in the way of empirical data to support a point of which he was already thoroughly convinced. In a later essay written for public consumption, he would name George Hickes's 1703 grammars of Anglo-Saxon and Gothic, Frankish, and Icelandic as amply demonstrating the structural unity of the Low German languages.[19] In Germany specifically Leibniz would name Johann Schilter, who

was working on a thesaurus (grammars and vocabularies) of the early medieval Germanic dialects, and of course Gerhard Meier in Bremen, who ultimately would spend two decades assembling the vocabulary of the Low Saxon dialect in particular.

Having established the unity of the several northern European tribes under a single heading, "Germanic," and having established their location in northern Europe and on the Black Sea, Leibniz turned to the course of their migrations. Nobody believed the Goths to be true autochthones, as if spontaneously sprung from the ground like mushrooms. Even Olaf Rudbeck traced them ultimately to the sons of Noah or to euhemerized deities. So both sides could agree on how best to move the Gothic/Germanic nation from Ararat or an Eden at the source of the Tigris and Euphrates to Europe. What Leibniz did not say was that for him the question was how to move an entire nation that had developed on the shores of the Black Sea. Olaf Rudbeck, by contrast, only had to move a single founding father, Atin, from whom the entire Gothic nation was descended.[20] Where Rudbeck invoked the circuitous wandering of a lonely Odysseus, Leibniz envisioned two possible national migration routes: a northern route through Finland to Sweden; and a southern route up the Danube to central Europe and then across the Baltic to Sweden. The latter seemed vastly more plausible to Leibniz.

Imagine how a nation might pass from the Black Sea or the Caucasus by the northern route, Leibniz wrote to himself, crossing the remotest deserts of Scythia, through territory held by Sarmatians and Samoyeds to the coasts of the Arctic Ocean, then slogging through swamps to Finland and Lapland, around the Bay of Bothnia (or across when it was frozen?) to Sweden, and from there finally crossing the Baltic Sea to populate the continent of Europe. "I don't know whether anything could be found more foreign to all appearance of truth." Once established in Europe, the Germanic migrants still had to backfill the region all the way to the lower Danube on the Black Sea, where the Ostrogoths and Visigoths were well attested by fourth-century historians. It was like the paradox of a river returning to its own source. Such a migratory route would be unique in the annals of human history. Even in the modern age nobody reached Sweden by way of Finland and Lapland. The terrain was so hostile that as late as 1695 the astronomer Johan Bilberg scuttled a scientific mission to the northern end of the Bay of Bothnia, where he had been charged with taking observations of the midnight sun and the flattening of the sphere of the earth at its poles.[21]

Much more plausible was the southern route. A southerly migration would take the future Germanic nation around the north shore of the Black Sea and up the Danube River. How many Scythian nations invading the Roman Empire and its successors had taken this route? In the fourth century it was the Goths, the Alans, and the Huns, then later came the Slavs, the Bulgars, the Avars, the Hungarians, the Cumans, and the Tartars. Where else could one find a more well-trodden road for national migrations? Thus, on the basis of geographical plausibility, Leibniz felt certain that Germanic speakers must first have occupied the forests of continental Europe and that only later did a northern wing migrate up through Jutland and cross the Danish islands to Scandia.

Leibniz's third set of evidence was river names. From the Don on the Sea of Azov to the Danube, the Rhine, and the Baltic a single nation of Germans ruled, according to Jordanes, the historian of the Ostrogothic kingdom of Italy around the year 600. Jordanes's assertion of cultural uniformity from the Rhine to the Black Sea could be verified by the repeated names for rivers in the Germanic realm. Jordanes called the major rivers Tanais, Danaprus, Danastrus, and Danubius.[22] The Danaper was the modern Dniepr, the Danaster the modern Dniester; and Dniester was homophonic to the Danube tributary Ister. Leibniz found that very often nations imposed the same name on different rivers. The Cherusci named many rivers *Boda*—the Lesser Bode, the Cold Bode, the Warm Bode, the Rapp-Bode, the Lupp-Bode—all tributaries of the Saale River in Saxony. The Hermunduri named many rivers *Milda*; the Ripuarii named them *Mosa* (e.g., the Maas and the Mosel); and the term *Elba* was the appellative word for "river" in the Scandinavian languages, while in Saxon it referred to a specific river.[23]

Perhaps the most innovative part of the essay, and certainly the part most heavily based on linguistics, was Leibniz's discussion of the Saami, or as they were known in his day, Lapps. Leibniz pulled together seven pieces of evidence to advance an argument for the continuity of a great Finnish-Lapp-Samoyed-Permian-Hungarian nation that occupied much of the Asiatic North. The evidence was not Lord's Prayers, word lists, nor other evidence that he collected himself; instead Leibniz drew on the published work of his fellow literary republicans. In the 1670s Johannes Schefferus had shown "with many arguments" that the Lapps were related to the Finns. Leibniz thought he had heard that the Estonians were a branch of the same linguistic nation. In rural Livonia, in the eastern Baltic region close to Estonia, words were used

that occurred also in the language of the Permians, near the Urals. This Leibniz had learned from Adam Brandt, the assistant of Isbrandt Ides on the embassy to China, whose report Reyer and Chuno had sent in 1695 (see above, chapter 6). Leibniz had heard a similar report about the Samoyeds and, much farther away, the Greenlanders as well. It had been known since the thirteenth century that the Hungarian nation came from a region of the deep North where several other populations had connections to the Finnish language. In the 1630s Comenius had pointed out cognates between Hungarian and Finnish, as had Georg Stiernhielm in his preface to the *Codex Argenteus* in 1671. "From the witness of language, therefore, we learn that one great Nation [*Nationem*], varying in peoples [*populos*] extended nearly from Siberia and the Ob River and the shores of the Arctic Ocean all the way to the North Sea or the Atlantic Ocean."[24]

These islands of Finno-Lappic, Estonian, Samoyed, plus Hungarian both in Pannonia and in Juhra, suggested that islands of related peoples isolated in Leibniz's time had once formed a linguistic continent of their own. Hence, Leibniz concluded, the Germanic peoples were not the original inhabitants of Europe. The true aborigines were Finno-Lappic speakers, who reached from the Baltic to the far side of the Caspian, including everything in between. When the Germanic nation migrated, the original inhabitants were pushed out to the margins, where now only discontinuous remnants survived. "The continuous chain of the rest of the Finnish nation or other related Arctic peoples was broken and their settlements scattered when in the west the Germans invaded Scandinavia and in the east Sarmatians by the name of Russians filled in with colonies the interior region of Scythia between the Finns and the ancient Hunugari of Jordanes."[25] Even the name Sweden indicated to Leibniz that the Swedes themselves were newcomers. "The name Sweden itself favors that thesis, signifying, as I understand it, a new land made suited to agriculture, the trees having been cleared away and burned."[26] Even in his own day, wrote Leibniz, the Lapps were not known as great agriculturalists but rather made their living by hunting and fishing. "The land would not have been made new until the invading Germans."[27]

In 1697 these were not opinions that Leibniz was willing to state publicly for fear of offending his Swedish colleagues. Indeed, however erroneous their conclusions, the Swedish work was crucial to his own on reconstructing the relationships between nations. Leibniz compared their work with other pseudoscience: Where would the field of dynamics be without the quest for perpetual motion? Or chemistry without the philosopher's stone? Or geometry

without the attempt to square the circle (an effort to which Leibniz himself contributed at the highest level)? Despite his own skepticism about the Scandinavian-homeland hypothesis, Leibniz envied the energy the Swedes put into the study of their own antiquities. He wished continental Germans would do the same.[28] In one place Olaf Rudbeck claimed that even the Scythians were descendants of the Goths, and elsewhere he and Georg Stiernhielm, along with Hugo Grotius and, much earlier, Jordanes, assigned Gothic origins to the fearsome Hyperboreans. Leibniz was willing to concede these designations. "Nevertheless I would advise scholars to be cautious lest, despite having been famous for something somewhere, they claim glory for their own nation with lightweight and sort of Goropian arguments, and thereby ruin their own credibility."[29] He found it difficult to take Olaf Rudbeck, who wrote actively through the 1690s and into the eighteenth century, seriously. "Dr. Rudbeck gives us . . . a huge apparatus of learning and no small acumen but . . . no semblance of truth." Leibniz worried that he would be forced to insult Rudbeck and his colleagues like Sparwenfeld "if I had to think that there was anything in there other than an elaborate parlor game."[30]

"Brevis designatio" (1710)

The arguments advanced in 1697 constitute the gist of one of Leibniz's very few published works on Germanic origins and migrations and the relations between historical nations, "Brevis designatio meditationum de Originibus Gentium, ductis potissimum ex indicio linguarum" (A short sketch of reflections on the origins of nations, drawn mostly from the index of language). Despite the tentative title, this essay's position as the first essay in the first volume of the first series of publications by the new Royal Prussian Academy of Science in 1710 shows the prominent place these linguistic inquiries occupied in Leibniz's mind. Here he formalized for public consumption what he had sketched out for himself thirteen years earlier in the "Brevis disquisitio" (1697).

The Finnish nation still enjoyed prominence as an ancient population inhabiting a vast territory reaching from the "Northern Ocean" (here meaning the Atlantic) to the Caspian Sea. Like the 1697 essay, the 1710 argument was supported by seven pieces of evidence. The evidence differed slightly in the revised version, but the effect was similar. Tacitus marveled at the ferocity of the "Fenni," as if describing the Lapps of the northern forest or the Samoyeds in Leibniz's modern age. Johannes Schefferus taught that the evidence of language showed that the Finns and Lapps shared a common origin. Jordanes described the "Scridi-Finni" as having relations with places far to the east,

and Leibniz understood Jordanes to have indicated that the Hungarians came from inner Scythia (*ab interiore Scythia*), "by which we now mean Siberia."[31] William Rubruck, the Franciscan friar sent by St. Louis of France in the thirteenth century to the Baskir Tartars, beyond the Caspian Sea, reported being able to communicate in his native Hungarian. Comenius explained that Finnish and Hungarian were related to each other but not to any other European language.

But in 1702 Leibniz received a crucial piece of evidence from Ludvig Fabritius, the Swedish envoy to Persia, who on his third embassy (1697–1700) had a Finnish servant named Henrich Brenner. "He could get along with the Mordvins pretty well," Fabritius reported to Leibniz, "and in the Finnish language he tried to get from them a spoonful of honey, bread, milk, brandy, a horse, water, and several other things that I don't recall." Fabritius had reported that the Mordvins were established around Nizhniy Novgorod and extended fifty or sixty miles on both sides of the Volga River as far as Kazan. "They purport that their ancestors were brought there from other lands, possibly from Finland having been relocated there as wartime prisoners."[32]

Thus, Leibniz argued publicly in 1710, these fragmentary remnants scattered across discontinuous modern nations indicated that in a former time a great continuous ancient nation once reached unbroken from the Atlantic Ocean to the Caspian Sea. That Finnish nation was ultimately broken up by invading Sarmatians. Estonians, Livonians, and other Baltic peoples of non-Slavic origin probably also belonged in the same set as the Finns, although since he was not familiar with those languages, it was difficult to know. "I suspect the same of the Samoyeds," he speculated. The Hungarians, "ex Scythia Asiatica," reached Europe later.[33]

But unlike in 1697, by 1710 the Finno-Lapp nation no longer held priority as the *antiquissimi habitatores* of Europe and Scythia. Underlying the Finno-Lapps was another nation both more ancient and of even greater geographical extent. The evidence for this most ancient nation too was language. Here Leibniz trotted out his favorite example, the word *mar* (horse). In chapter 3 above we saw that Kochanski had related to him the news of Grimaldi's 1689 audience with King Jan III Sobieski, in which they discovered that the term *mar* was common to both the Lipka Tartars of Lithuania and the Oriental Tartars of China. Leibniz noted that observation in 1710, and he added a remark by the second-century geographer Pausanias in which *mar* appeared as an ancient Celtic root word meaning "horse."[34] Finally he pointed out that

the ancient Teutones had used the term *mare*, and its use in the Germanic languages had survived into the present. Thus five clues from disparate sources (Grimaldi, King Jan III, Pausanias, ancient and modern Germanic) suggested the continuity of a very ancient term that had survived the transformation of language and population through the ages of human history. To his *mar* example Leibniz added an apparent association between the western Eurasian term *king* and the eastern Eurasian term *khan*, versions of another term that seemed to span the Eurasian continent from the Atlantic to the Pacific. *King*/*khan*, one who wields power, seemed to be reflected in the modal verb *can* (German, *können*), "to be able or to have the power to do something," although unfortunately any post-Grimm linguist would recognize that association as spurious. "Thus, whenever a word either the same or slightly different is found to be common to the Britons, Germans, Latins, Greeks, Sarmatians, Finns, Tartars, and Arabs (which is not so unusual), we see a remnant of that ancient common language."[35]

An ancient common language whose traces survived in so many distant vocabularies showed, Leibniz argued, that the many disparate nations were composed of emigrants or colonists of one single original nation or stock (*gentis aut stirpis*). Over the course of time the evidence of their common source was worn away, and their precise relationships became obscured as language merged with language, such as English with French and French with English, or like Romansh in the former Roman province of Rhaetia, a language, as seen from a Lord's Prayer he had acquired, that represented a corrupted hybrid of Cisalpine Gallo-Italian and Latin.[36] And yet through the transformations and corruptions wrought by time and human history, that ancient and widely spread original language could still be glimpsed.

Having established aboriginal underlying unity in a single ancient language, Leibniz then proceeded to trace the transformation of that ancient protolanguage over time and its division into many subsequent groups. There is no need in these pages to elaborate the complex scheme of national migrations that Leibniz advanced in the second half of his 1710 essay. In 1946 Liselotte Richter published a graphical table in a genealogical, or family-tree, style intuitively familiar to modern readers.[37] Significantly, Leibniz himself produced no such table but instead narrated his classification of the Scythians into three sets: Turco-Tartars, Sarmatians, and Finns. Each of these groups Leibniz supported with a variety of linguistic, geographical, and historical evidence, most of which we have already seen—Joachim Bouvet's Lord's Prayer

and small vocabulary, Petrarch's trilingual dictionary, and Fabritius's embassy to Persia, among others.[38]

August Ludwig Schlözer was emphatic that Leibniz's historical linguistics blazed the trail to modern ethnology. In the *Allgemeine Nordische Geschichte* (1771) Schlözer explained:

> Formerly it was the fashion to seek the origins and relations of nations in annalists. But annalists, says Leibniz, whether ancient or later from the Middle Ages, are no source of knowledge for these inquiries, rather grammarians and lexicographers. This represents a total transformation in the entire manner of proceeding: entirely new points of departure; a wholly different source, under which the formerly dominant method is relegated to the role of auxiliary; hence also entirely different conclusions.[39]

Leibniz's identification of language as a means to get behind the ancient geographers in order to identify the peoples of Asia resonated with Schlözer in 1771. By the end of that decade a concept of *Cultur* would emerge, and shortly after that another new science alongside *Völkerkunde* (ethnology), *Culturgeschichte* (cultural history). Like ethnology, *Culturgeschichte* was inherently comparative, a science directed toward understanding the developmental processes internal to a nation's history—processes of rise and progress, of decline and fall—and determining whether human societies universally followed natural processes (such as youth–maturity–senility) or whether the course of each nation was unique and followed from its own character.[40]

Increasingly, commercial ambition and navigational technology projected European observers into ever more remote regions of the globe. In the 1770s J. R. Forster would draw a sharp distinction between peoples who would later be termed *Polynesian* and *Melanesian*. Although isolated in the remotest Pacific, two distinct populations lived in close proximity to each other. On the basis of physical features and cultural forms Europeans speculated that they were distinct nations. But the evidence of language was the clincher that proved both the coherence of each set internally (although widely distributed across the islands) and also the essential difference of each set from the other.[41] Wilhelm von Humboldt's three volumes on the Kawi language of Java would appear posthumously in the 1830s.

The comparison of Lord's Prayers continued into the nineteenth century too. Although G. F. Müller had abandoned Lord's Prayers with respect to

Asiatic nations that had no conception of a monotheistic deity, in the 1780s the ex-Jesuit Don Lorenzo Hervás y Panduro found the Lord's Prayer to be still a useful tool not only for comparative vocabulary but also for grammatical structure. He combed the library of the Propaganda Fide at Rome for 307 versions—almost every world language then known to Europeans—explicitly to demonstrate the diversity of languages and nations, how they were related to one another, and their origin and descent. In yet another compilation, entitled *Mithridates* (like Gesner's from 1555), J. C. Adelung aimed for 500 Our Fathers. Like Leibniz, Adelung did not survive his project, completing only the volume on Asiatic languages (1806). J. S. Vater finished the volumes on European, African, and American languages. Adelung's Lord's Prayers were still alive the year after Franz Bopp's *Conjugation System of Sanskrit* was published, when Adelung's nephew Friedrich, long at St. Petersburg and himself a scholar of Sanskrit, updated the Asiatic volume with annotations. The comparative grammar of the nineteenth century was developed in order to answer the questions that the Adelungs, Hervás, and Schlözer were asking in the eighteenth century and also the questions being asked—without data to answer—by Leibniz.

I did not set out to write this book. Transitioning from my first book while on a National Endowment for the Humanities Summer Stipend working with the letters and ethnological artifacts in the Georg Thomas von Asch collection at the University of Göttingen, I kept stumbling on references in modern scholarship to Leibniz as a foundational figure of modern historical and comparative linguistics. Since the critical edition of Leibniz's *Sämtliche Schriften und Briefe* occupied a bookcase (and more) just around the corner from my study carrel in the Central Library of the Staats- und Universitätsbibliothek, I started tracking down footnotes. One thing led to another, and before I knew it two weeks were gone! I set aside the Leibniz volumes before they derailed my work on the Asch collection, but during the next couple of academic years I continued to read the scholarship on Leibniz's linguistic project—Aarsleff, Schulenburg, Gensini, Lach, Perkins, and others—as time permitted.

A fortunate convergence in 2009–10 of the American Council of Learned Societies and the School of History at the Freiburg Institute for Advanced Studies afforded me the time and intellectual freedom to dig in seriously. The material presented here was supposed to be just one part of the second chapter of a different book, but just as in Göttingen, in Freiburg things quickly got out of hand. First it was a chapter plus a research article, then a series of articles. Finally, after several months I relented and let it become what it wanted to be all along, a book in its own right.

It is a tribute to the commitment of the Berlin-Brandenburg Academy of Sciences since the reunification of Germany that this book could be written at all. Only now, with the publication of the Leibniz correspondence through 1707 (as of this writing), can the correspondence be read systematically and in chronological order such that we can reconstruct what Leibniz was looking for, what he knew at particular moments, how his intentions evolved over time, the extent of his efforts on historical languages, and the purpose of those inquiries. This book could not have been written without the editorial work of the Berlin-Brandenburg Academy of Sciences, as well as the efforts of scholars at the Leibniz Archive in Hannover, specifically Malte-Ludolf Babin and Gerd van den Heuvel, who edited Leibniz's historical writings, and Rita Widmaier, who edited Leibniz's correspondence with the Jesuits of China. That is, although the setting is three centuries ago, this book is built on the recent and ongoing scholarship of contemporary Germany.

Daniel Purdy and Bettina Brandt gave me the occasion to float what is now chapter 6 (on *Novissima Sinica*), first at a conference at the Pennsylvania State University and then more formally as a chapter in their *China in the German Enlightenment* (University of Toronto Press, 2016). I am grateful for the advice and encouragement of Han Vermeulen in Halle and the encouragement and support of Martin Mulsow at Gotha and Erfurt.

At Old Dominion University, the Department of History provided a subvention for some of the illustrations. Two semesters of research leave from the College of Arts and Letters freed up time to write. The graphics department of the Center for Learning and Teaching assisted with some of the maps.

My thanks to the many others who have watched this work take shape and offered encouragement, including my colleagues at Old Dominion and at the *Journal of the History of Ideas*; Tony Grafton, who was instrumental as a literary agent; and Bonnie Smith and Donald Kelley, to whom this book is dedicated. My thanks also to the editorial and production staff of Johns Hopkins University Press and especially to Joanne Allen for her sharp and critical eye during copyediting. Above all I am grateful to Elizabeth, who has been here through it all and is still at my side; and to Anna and Madeleine, who grew up with this book.

A.I.11, #125
"Desiderata circa linguas quorundam populorum"
Desires concerning the languages of certain peoples
[l^1, l^3: particularly situated in regions of the North]

Translation derived from the critical edition published as A.I.11, #125. Variant readings follow the Academy Edition, which compares four manuscripts in the Leibniz Archive at the Niedersächsische Landesbibliothek in Hanover. The manuscripts are designated as follows:

- L = draft of the version sent to Oberg
- l^1 = a draft with many changes in Leibniz's own hand representing three stages of revision
- l^2 = a finished copy in secretarial penmanship though with additional (presumably later) changes in Leibniz's hand; the basis of the edition at A.I.11, #125
- l^3 = a transcription of a lost version apparently based on l^1

Variant readings as indicated in the Academy edition are indicated in [brackets]. For additional details of the manuscripts and their variants, see the editorial notes at A.I.11, #125.

Versions were sent with the following cover letters:

- A.I.11, #124, Leibniz to Bodo von Oberg, [Wolfenbüttel**,** first half of January 1695]—this exemplar
- A.I.11, #205, Leibniz to J. J. J. Chuno, Hanover, 21 February / 3 March 1695
- A.I.11, #334, Leibniz to Antoine Verjus, [Hanover], 27 May / 6 June 1695
- A.I.14, #235, Leibniz to Pierre Lefort, Hanover, 3/13 August 1697

[Part I: Questions pertaining to the History of Languages]

(1) A specimen is desired of the words and manner of speaking peculiar to the Saxons of Transylvania, that is, not as educated people speak but as the commoners speak, so that they can be compared with the common language of our Saxons. For it is said that there are among those commoners many words that are neither Hungarian nor Slavonic, and nevertheless are not commonly known among other Germans.

[in margin of l^1 and body of l^3: It is certain that nothing can cast more light for tracing the ancient origins of peoples than the Comparison of Languages;

whence I have often wondered that Geographers and Travelers neglect to write about Languages, nor, except rarely, do they exhibit samples of them. Therefore, although it is agreed that a great part of Asia and Europe received colonies from the North, the northern nations presently situated there, which very much ought to be known, are in fact the least known of all. Given the importance of this work, I ask those who have access to such information to engage in this study either by their authority or by exercising their own curiosity.]

(2) We desire to know whether in Crimean Tartary there are still remnants of ancient Germans or Goths using a Germanic dialect. For Busbecq, who was Imperial Envoy at Constantinople in the time of Suliman, saw such half-Germans at Constantinople who came from Crimea and wrote down many of their words.

(3) That if such still exist, inquiries should be made into the many particularities of their language and condition.

(4) It is asked who are the peoples under the Muscovite [l^2: Russian] Empire or in that region, whose languages in general are not Slavonic but peculiar to them.

(5) It is asked, what are the particular languages of Siberia and of peoples beyond near the River Ob and the River Irtisch and those other rivers. This can be known through interpreters and Merchants who frequent Tobolsk, the capital city of Siberia, and from that city travel to or have commerce with Persia, India, or China. For such could procure the Lord's Prayer or *pater noster* [l^3: as it is commonly called], translated into the languages of many diverse peoples, which is the best way for comparing languages, since we now have many versions of this. They could also add some words of common things, which we list below.

(6) It is asked what are the languages on the north shore of the Black Sea, and beyond toward the east and north. Again this could be known through Interpreters, Missionaries, and Merchants who are acquainted with the cities of Caffa, Trapezuntium (commonly, Trebizond) and other markets located there; who also could procure the *Pater noster* translated into those languages along with some other words.

(7) It is asked further what are the languages on the north shore of the Caspian Sea and beyond toward the east and north. This could be known through Interpreters, Missionaries, and Merchants who are acquainted with the City of Astrakhan who again could procure such versions and certain words.

(8) Specimens and *Pater nosters* are requested of the following languages: Czeremisse, Circassian, Nagaiskio, Calmuck, Uzbec, and Mongol etc., which peoples all inhabit Tartary. [l^3: And it is asked from which languages of Crimea it might already have already been attempted, in addition to the other languages located between the Danube and Don, of whom also words and Lord's Prayers are desired.]

(9) It is also desired to be known whether and which languages might be more generally and broadly diffused in those remote regions but which nevertheless are of a different kind from Slavonic or Muscovitic.

(10) It is asked whether there might still be traces of the Cuman language anywhere, who, forced by the Tartars in the thirteenth century, fled to Hungary.

(11) It is said that a certain Hungarian Jesuit many years ago was captured by Tartars and sold to other Barbarians on the other side of the Caspian Sea, where he discovered the Hungarian language was known. It is asked whether other notices of such a thing could be had.

(12) It is asked whether or not there is a certain language peculiar to the Hungarian, Greek, and Turkish Slavs entirely different from that found in Albania and Bulgaria. For it is said that such a singular language is found in the mountains of Albania or Epirus. [this entire question is stricken from l^2. l^3 continues: It is asked whether there are not found among the Bulgars traces of an ancient language that was formerly brought from Scythia.]

(13) Let whatever Lord's Prayer or pater noster or other words of the language be written in known letters and subjected to a word for word interlinear translation in any language generally known in Europe, whether in Latin or German or any Slavonic variety such as Polish or Muscovitic [l^2: Russian], or any other. And that translation must be made verbatim, since different peoples express the words of the Lord's Prayer in different manners.

(14) This could be of use to public interpreters, Christian Missionaries, and Merchants whether Latin, Greek or Armenian Christians as well as Jews. And it would be to the glory of God to translate the pater noster or Lord's Prayer into those languages, where they do not yet have it, that all tongues may praise the Lord, and on that account it is hoped that Missionaries and other pious people would not be ungrateful. For the Lord's Prayer or pater noster addresses not only the Christian but also Jewish and Muslim religion; for it contains nothing other than prayers to one God the father of all.

(15) We now have the Pater noster or Lord's Prayer in the languages of the Poles, Serbs, Dalmatians, Croats, and Russians or Muscovites (all of which are languages of the Slavonic type), as well as Hungarian (which is a peculiar type), Wallachian (which is semi-Latin), Latvian and Livonian (which two are related between themselves but different from others), Turkish, Persian, Armenian, Chinese. This should be remembered so that work that has already been done not be sent.

(16) Whenever the Lord's Prayer or pater noster and other words are written down; the name and location of the people who speak it should be added.

(17) In addition, it would be useful to add [l^3: For the samples I would propose] a little index of certain words expressing common things. Such would be:

[Part II: Word List]

(18) *Names of numerals*: One, two, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 50, 100, 1000.

(19) *Relationships* [l^2: and Ages; l^3: sexes and ages]: father, mother, grandfather, son, daughter, brother, sister, paternal uncle, marriage, wife, father-in-law, son-in-

law [l^3: male, female, child, boy, girl, youth, old man]; man, woman, child, youth, old man.

(20) *Parts of the Body*: body, flesh, skin, blood, bone, head, forehead, nose, eye, pupil, ear, beard, mouth, tongue, tooth, chest, heart, arm, hand, foot, finger, hair, stomach, breast.

(21) *Necessities*: food, drink, bread, water, milk, wine, beer, herb/grass, grain, fruit, salt, fish, cow, egg, horse, clothes, hide/pelt, house, wagon, sword, bow, arrow, spear, cannon.

(22) *Naturalia*: God, man, Heaven/Sky, sun, moon, star, air, rain, thunder, lightning, cloud, frost, hail, snow, ice, fire, heat, light, smoke, land, field, mountain, valley, sea, river, stone, sand, dog, wolf, deer, bear, fox, bird, snake, mouse.

(23) *Actions*: eat, drink, speak, live, be, stand, go, fall, laugh, sleep, know, want, etc.

(24) However these should not be considered necessary to be obtained in every case, but they may be engaged as a measure for obtaining some things that might be had easily; particularly since perhaps it might be less easy to obtain the pater noster itself [l^2: than the individual words of the nation]. In the meantime some might be given, so that we might have more light etc. etc.

Plan for a Moscow Academy of Sciences and Arts

Gottfried Wilhelm Leibniz (1646–1716)

Think piece on debarbarizing the Muscovite Empire, as a proposal for a General Institute for the Sciences & Arts, ca. August 1697. Recipient unknown, possibly François Lefort (1697) or Heinrich Huyssen (ca. 1705). Printed in Woldemar Guerrier, *Leibniz in seinen Beziehungen zu Russland und Peter dem Großen* (St. Petersburg, Russia: Eggers, 1873), doc. 13, pp. 14–19. Scheduled to be printed in A.IV. Originally in French; first two paragraphs also in German. Translated by M. Carhart.

I don't see how a Great Prince could formulate a better plan than to render his states flourishing and to cultivate to perfection the plantation that God has entrusted to him. The Great Czar of the Russias has shown the extraordinary height of his Genius and his heroic courage not only in the affairs of war, but also in government in forming and executing some projects, which none of his predecessors had dared to consider. He is concerned also with the needs of his own land and not content to give to his peoples the perfections that they lack, he thinks also of the general good of Christianity in animating others against the common enemy by a very grand Embassy and in assisting them by great force with much success. What is even more considerable, the need is pressing and it is reasonable to believe that without this diversion our affairs in Hungary would take a bad turn. So we have reason to ask God to preserve this Great Prince, who is now in the flower of his age, that he might achieve what he has begun so gloriously. And the surprising event of the Election of Poland gives us great hope that God is disposed to humiliate the Ottomans and is beginning to pursue the Muslims at least from Europe.

It seems also that it is a singular coincidence or rather an act of Providence, that simultaneously in the North, in the East and in the South, the three greatest Monarchs have similar intentions and all very singular. For in addition to Czar Pieter Alexiewiecz sovereign Lord of the Russias and of nearly all the North, we understand that Cam-hi Amalogdo-Chan, Monarch of China and of the far eastern Tartars, and Jasok Adjam-Saugbed, king of the Abyssinians, who has also made great conquests over his barbarian neighbors—; have all designed plans that by far surpass those of their ancestors, as we learn both by the new relations from China, where Christianity comes to be authorized and supported by an edict of the King, and by the embassy of the Abyssinians to Holland in 1692. The Czar and the King of the Abyssinians are both Christians, enemies of the Turk against their borders, although very distant from one

another. But the Czar and the Monarch of the Chinese share a border and both are marvelously inclined to attract to their lands the sciences, the arts and the good manners particularly of our Europe, and they could lend a hand and mutually oblige themselves in this regard.

I can only speak presently of something that might further this intention, leaving aside what regards the State, War, and commerce with navigation; although in effect nothing would be more important for all these points than the sciences and the arts. It seems that for transplanting them into Russia, conforming to the intention of the Czar, it will be good to expressly charge certain persons for this purpose and to form a general project that consists of these two chief goals: to attract to the greatest extent possible what is best from foreign lands, both outstanding and intelligent people and rare and useful things; and to cultivate domestically both the people and the lands in which they live.

The people can be cultivated by letting them travel, as well as by educating them at home. And the region can be cultivated by taking an exact inventory of what it has and doesn't have, and by considering how to supply what it lacks. So here are some Articles for understanding all that is to be done.

1. Form a general institute for the sciences and arts.
2. Attract capable foreigners.
3. Import worthwhile foreign items.
4. Permit subjects to travel, with suitable precautions.
5. Instruct the peoples among them.
6. Draw up exact reports of the regions in order to know their needs.
7. Supply what things are lacking there.

It will be good to say some words about each of these articles.

Firstly. The general institute requires a general proposal by persons chosen for its execution and a suitable endowment [*fonds*]. *The proposal* would be a full description of what is to be done, as an announcement that this is not a small undertaking. The chosen persons, above all the principals, ought to be well versed in the sciences and arts, of high genius, above self-interest, seeking glory rather than gain, hardworking and active, and who have substantial correspondences and knowledge. Regarding the *endowment*, the quantity and manner depend entirely on the good pleasure of the Czar. Nevertheless it will be good for him to remember that time is the most precious thing in the world, that it can be bought only too dearly, and so it is better to do the most important things with vigor, than to let them drag along slowly by too great a savings. Then the delay might give rise to a thousand obstacles besides what is postponed, and it will be not we but our posterity who will taste its fruits.

Secondly, in order to attract foreigners, the laws that tend to forbid or deter them must be repealed or amended, particularly those that prevent them from entering and leaving freely. For if they are treated well, for every one who leaves, ten others will come. They should be accorded specific privileges and advantages for posts and cars in order to transport in and out of the country themselves and their furniture and clothing, as regards their homes, subsistence, justice, police, and business. It should

also be deliberated whether it would be suitable to assign them specific locations in order to establish colonies.

Thirdly, foreign things that could be imported, including books and instructions on all sorts of matters, curiosities, rarities and good things, that could be propagated or imitated in the country. So there should be libraries, boutiques of booksellers and printers, cabinets of rarities of nature and art, gardens both simple and menageries, animals, storehouses of all sorts of material and dispensaries of all kinds of work. Books, both printed and manuscript, contain a treasury of human knowledge on all sorts of subjects, since by means of writing and particularly printing knowledge is fixed and transmitted from person to person as well as to posterity. So human memory should not be neglected, since nothing can be accomplished without this aid.

The cabinets should contain everything significant that can fit into small spaces, including samples of rare things from nature and art. And concerning nature there must be particularly rocks, metals, minerals, living plants or imitations, dried or embalmed animals, skeletons, paintings and other imitations when the original cannot be had.

The rarities of art could be drawings, models, and sketches of all sorts of good inventions, mathematical instruments, pipes, mirrors, glass, clocks, tables, statues and other sculptures, medals and other antiquities, in a word everything that could instruct and please; beyond the things that can be encased in cabinets, in order to have things in scale, gardens could be set up for all sorts of plants, flowers, herbs and trees that the country can support with orangeries and other means suited to preserve them in winter. There should also be zoos [*ménageries*] and fish tanks, ponds and aviaries in order to have all kinds of beasts, birds and fish. And the country should be investigated in order to propagate its own plants and animals. Warehouses would contain a quantity of other drugs and materials well arranged and well cared for. And finally there would be full-sized observatories, mills, boutiques, dispensaries and factories with all kinds of machines and inventions placed effectively in operation.

Fourthly. Russian travel could be for curiosity and commerce or employ. Voyages of curiosity would be suitable both to lords and to artisans who wish to improve themselves. It is true that these would be less necessary if they were better instructed at home. A few would travel from time to time anyway. Voyages of employ, like embassies, are of a different type. Those of commerce are both by sea and by land: by sea, in navigating to neighboring or distant lands, would be on foreign vessels or in their own, individually or in squadrons or fleets, simply for business or for making settlements and colonies; by land they might travel alone or in caravans, to Europe, to Persia and India, or to China [*le Cathay*]. All of this must be done with great care that the virtues and advantages of foreign countries might be appropriated without contamination by their vices, as much as possible. At any rate, so that bad habits or pernicious maxims might not be taken, contrary to the piety due to God and to the obedience due to the Monarch.

Fifthly. The instruction of the peoples domestically consists in the founding of schools and Academies both of sciences and arts and of practice. Good instructors must be chosen, who would take care to lead the children and youth toward virtue as

well as science. In order to give their instructions, they should make books expressly for their own usage and for that of their colleagues, to procure books, instruments and occasions to practice them. It will be good also that those who have become learned understand history, mathematics and languages, particularly Hebrew, Latin, Greek, and German, but above all Latin, which now contains . . . [*Guerriel has a footnote here explaining that the end of the sentence is missing in the manuscript.*]

Sixthly. The exact knowledge of the country consists in making maps that note the languages and customs and how the people work, to examine what the country bears and what it could bear. To make maps, engineers would have to be sent to observe altitudes, longitudes and magnetic variations, to reconnoiter the coasts especially in the Northeast as far as possible in order to learn whether Asia is joined to America or if there is a passage between them—to indicate the smallest rivers and other natural boundaries, the quality of the terrain, the multitude of men. About the customs of men, their language, their religion and manners [*police*], and how they occupy themselves should all be understood. The principal concern ought to be to pull them away from stupidity [*bestise*], impiety and laziness. And regarding the country itself, customs registers could serve to learn what it bears, or better yet, to examine what it could bear, if it were employed as it ought to be and if the people were industrious; this could be judged by the terrain, by the climate, by the animals and plants that are natural to them, by what is made by neighbors and by certain suitable proofs for instructing as above.

Seventhly. In the same way, in order to supply what the country lacks, grains and other herbs should be sown, good trees planted, animals transported that they might multiply, mines worked for metals and minerals, glassworks, forges, and other dispensaries built, the people of distant provinces instructed to build, to maintain public order [*police*], to cultivate the earth, to have flocks of animals, to occupy themselves with useful work, to build canals for the transport of goods and for the draining of swamps. In a word, to put order to all sorts of good enterprises that are practiced everywhere and that they could imitate and perfect themselves. But since all this cannot be done equally at one time, things should be done in order and the better ones embraced and pursued with all possible vigor.

Chapter 1 · Grimaldi at the Gates of Muscovy (Fall 1689)

1. Ferdinand Verbiest to Charles de Noyelle, Beijing, 21 September 1686, in Verbiest, *Correspondance*, no. 72, pp. 528–32. Also Gerbillon, "Voyages en Tartarie," 173. Kadino is inferred from Avril, *Voyage* (1692), 283–84, 288–90; and David, "Revolutionis in regno Moscovitico" (Kadzin, 12 October 1689), 2:418–27.

2. A.I.9, #341, Leibniz to Gustav Daniel Schmidt, [Hanover], 12/22 July 1693; A.I.10, #98, Leibniz to Carlo Mauritio Vota, [Hanover, December 1693].

3. A.I.9, #341, Leibniz to Gustav Daniel Schmidt, [Hanover], 12/22 July 1693; cf. the map published in Avril, *Voyage* (1692).

4. A.I.14, #236, Leibniz for Pierre Lefort.

5. A.I.7, #347, Leibniz to Adam Adamandus Kochanski, [Wolfenbüttel?], 11/21 March 1692, 613–14.

6. See, e.g., Pedersen, *Discovery of Language*.

7. Trautmann, *Aryans and British India*; Trautmann, *Languages and Nations*, 32–34. See also Benes, *In Babel's Shadow*, 67–68; and Haarmann, "Die großen Sprachensammlungen."

Chapter 2 · Making the Worst of a Bad Assignment (Autumn 1690–Summer 1692)

1. Leibniz, "Protogaea" 1693); Leibniz, *Protogaea*, ed. Scheidt (1749). Scheidt also edited volumes 1–4 of Leibniz's *Origines Guelficae* (1750–53). Leibniz mentioned *Protogaea* as complete in A.I.10, #67, Leibniz for Kurfürst Ernst August, [Hanover, beginning of November(?) 1694]. French translations were published by Bertrand de Saint-Germain (1859) and Jean-Marie Barrande (1993). A German translation was published by W. von Engelhardt (1949). See also the Latin edition with English facing-page translation by Claudine Cohen and Andre Wakefield (2008).

2. A.I.6, #246, Leibniz to Huldreich von Eyben, Hanover, 26 March / 5 April 1691. The source translates roughly as, "What was the origin of Mathilda's mother, Beatrix of the lineage of Lorraine?" And "from what lineage was Siegfried . . . a lord from the domain of Lucca in Lombardy"? The sources of Este claimed "that the supposed Siegfried was from the lineage of Este."

3. Leibniz, *Leibniz Korrespondiert mit China*, no. 1, pp. 1–3; revised with facing-page German translation as Leibniz, *Der Briefwechsel mit den Jesuiten in China*, where the letter appears on pp. 1–5.

4. Leibniz, *Der Briefwechsel mit den Jesuiten*, nos. 2 and 3, pp. 6–15.

5. Leibniz, *Der Briefwechsel mit den Jesuiten*, no. 4 at point 22, pp. 22, 23.

6. A.I.5, #10, Leibniz to Hiob Ludolf, [Frankfurt am Main, 19(?) December 1687].

7. Aarsleff, "Study and Use of Etymology in Leibniz," 85, 93, 95.

8. A.I.5, #10, Leibniz to Hiob Ludolf, [Frankfurt am Main, 19(?) December 1687]. The essay on loan was Ludolf, *De Bello Turcico feliciter conficiendo* (1686).

9. Antognazza, *Leibniz*, 286, 293.

10. A.I.6, #164, Christian Franz Paullini to Leibniz, Eisenach, 12/22 December 1690.

11. A.I.5, #10, Leibniz to Hiob Ludolf, [Frankfurt am Main, 19(?) December 1687], 30.

12. A.I.5, #10, Leibniz to Hiob Ludolf, [Frankfurt am Main, 19(?) December 1687], 31–32.

13. Antognazza, *Leibniz*, 325, 364.

14. Ericus, *Anthropoglottogonia sive Humanae Linguae Genesis*. Leibniz's engagement with this work is addressed at length in Schulenburg, *Leibniz als Sprachforscher*. For Leibniz's *dissertatio* itself, see Gensini, *Il naturale e il simbolico*.

15. A.I.6, #131, Leibniz to Johann Petrus Ericus, Hanover, 2 November 1690.

16. A.I.6, #149, Johann Petrus Ericus to Leibniz, Venice, 1 December 1690; *Monatliche Unterredungen* 1 (May 1689): 509.

17. Note that Leibniz himself followed precisely this procedure when he addressed Ericus's *Anthropoglottogonia* in *Epistolica de Historia Etymologica Dissertatio*. Schulenberg, *Leibniz als Sprachforscher*, 82–84, was most interested in Leibniz's section 50, passing over the summary of Ericus's argument, which occupied most of Leibniz's attention in sections 39–49.

18. A.I.6, #182, Leibniz to Johann Petrus Ericus, Hanover, 12/22 January 1691.

19. Aarsleff, "Schulenberg's *Leibniz als Sprachforscher*," 132, 133.

20. A.I.6, #246, Leibniz to Huldreich von Eyben, Hanover, 26 March / 5 April 1691, 442.

21. A.I.6, #246, Leibniz to Huldreich von Eyben, Hanover, 26 March / 5 April 1691, 442.

22. A.I.6, #180, Leibniz to Huldreich von Eyben, [Hanover, 11/21 January 1691]. The second paragraph of the letter seems to indicate that the two had communicated previously, although apparently anonymously.

23. A.I.6, ##190, 191, Huldreich von Eyben to Leibniz, W[etzlar], 20/30 January 1691.

24. Leibniz, *Leibnizens gesammelte Werke*, 4:227–39; Leibniz, *Schriften und Briefe zur Geschichte*, no. 49, pp. 800–837.

25. Leibniz, *Schriften und Briefe zur Geschichte*, 800–801.

26. Leibniz, "Brevis synopsis historiae Guelficae," in *Schriften und Briefe zur Geschichte*, 804; in Leibniz, *Leibnizens gesammelte Werke*, 4:228.

27. According to the editors' marginal annotation to Leibniz, "Brevis synopsis historiae Guelficae," in *Schriften und Briefe zur Geschichte*, 804.

28. A.I.6, #21, Leibniz to Herzog Ernst August, [Hanover, mid-January 1691].

29. Ohnsorge, "Leibniz als Staatsbediensteter," 177, reports that the 150 Thaler copyist allowance started "ab Neujahr 1691." If so, then Leibniz's request (A.I.6, #21, 31) for "einige Personen nöthig von einiger erudition . . . die ich aber wochentlich unter 3 thl. nicht halten kan" (i.e., 156 Thaler per year, almost precisely the amount reported by Ohnsorge) would have to be dated prior to "ab Neujahr." In order not to disturb the association of A.I.6, #21, with the January audience, I will assume that Ohnsorge did not intend his phrase to be taken precisely and that the starting date for the copyist allowance may be moved to after that audience.

30. A.I.6, #21, Leibniz to Herzog Ernst August, [Hanover, mid-January 1691], L^2, 30.

31. A.I.6, #21, Leibniz to Herzog Ernst August, [Hanover, mid-January 1691], L^1, 23–24.

32. Leibniz, "Histoire de Bronsvic," in *Schriften und Briefe zur Geschichte*, no. 50, pp. 838–74; Bodemann, "Leibnizens Entwürfe," also printed the "Histoire de Bronsvic" (1692).

33. A.I.8, #8, Leibniz for Otto Grote, [Hanover, June 1692].

34. Leibniz, "Entwurf der Welfischen Geschichte" (1692), in *Schriften und Briefe zur Geschichte*, no. 51, pp. 875–95. Werner Conze thought this German version was so close to the French-language "Histoire de Bronsvic" as to be a translation. See also the German-language summary in A.I.9, #9, Leibniz to a Hanoverian Minister, [Hanover, June(?) 1692].

35. Aarsleff, "Schulenburg's *Leibniz als Sprachforscher*," 125; cf. 133.

36. Leibniz, "Histoire de Bronsvic," in *Schriften und Briefe zur Geschichte*, no. 50, pp. 842–43.

37. Leibniz, "Histoire de Bronsvic," in *Schriften und Briefe zur Geschichte*, no. 50, pp. 843–44.

38. Leibniz, "Histoire de Bronsvic," in *Schriften und Briefe zur Geschichte*, no. 50, pp. 844–45.

39. Antognazza, *Leibniz*, 325; cf. 232.

Chapter 3 • Building the Network (Winter 1691–Summer 1692)

1. A.I.6, #144, Chilian Schrader to Leibniz, Celle, 9/19 November 1690; A.I.6, #148, Leibniz to Chilian Schrader, [Hanover, end of November 1690].

2. Müller and Krönert, *Leben und Werk*, 108.

3. A.I.6, #208, Chilian Schrader to Leibniz, Celle, 15/25 February 1691.

4. A.I.6, #215, Chilian Schrader to Leibniz, Celle, 22 February / 4 March 1691.

5. A.I.6, #253, Chilian Schrader to Leibniz, Celle, 3/13 April 1691. At the end of April Schrader expressed hope that his brother had written to Leibniz. A.I.6, #276, Chilian Schrader to Leibniz, Celle, 25 April / 5 May 1691.

6. A.I.6, #117, Gerhard Meier to Leibniz, Bremen, 1/11 October 1690.

7. A.I.6, #264, Leibniz to Gerhard Meier, Hanover, 10/20 April 1691.

8. See Shelford, *Transforming the Republic of Letters*.

9. A.I.6, #325, Gerhard Meier to Leibniz, Bremen, 2/12 July 1691.

10. A.I.7, #184, Leibniz to Gerhard Meier, Braunschweig, 11/21 September 1691. Note that this was less than a week after A.I.7, #181, to Ludolf.

11. A.I.6, #299, Chilian Schrader to Leibniz, Celle, 29 May / 8 June 1691.

12. A.I.6, #300, Georg Friedrich Mithoff to Chilian Schrader for Leibniz, Lüchow, 17/27 May 1691.

13. A.I.6, #281, Chilian Schrader to Leibniz, Celle, 30 April / 10 May 1691.

14. A.I.6, #300, Georg Friedrich Mithoff to Chilian Schrader for Leibniz, Lüchow, 17/27 May 1691.

15. A.I.6, #301, Bemerkung zum polabischen Vaterunser, [Hanover, beginning of June 1691].

16. A.I.6, #302, Leibniz to Claudio Filippo Grimaldi, Hanover, 31 May / 10 June 1691.

17. Ferdinand Verbiest to Charles de Noyelle, Beijing, 21 September 1686, in Verbiest, *Correspondance*, no. 72, p. 530. This letter is also the source for the previous paragraph about Macao and the Dutch embassy.

18. A.I.5, #342, Leibniz to Landgraf Ernst von Hessen-Reinfels, [Hanover, end of June 1690].

19. A.I.5, #382, Daniel Papebroch to Leibniz, Antwerp, 7 August 1690; A.I.6, #168, Papebroch to Leibniz, [Antwerp, December 1690].

20. A.I.6, #133, Leibniz to Antonio Magliabechi, Hanover, 26 October / 5 November 1690.

21. As confirmed in A.I.6, #307, Daniel Papebroch to Leibniz, Antwerp, 21 June 1691.

22. A.I.6, #302, Leibniz to Claudio Filippo Grimaldi, Hanover, 31 May / 10 June 1691.

23. [Verbiest], "Extrait d'une Lettre tres-curieuse," 202.

24. Jami, "From Clavius to Paradies."

25. A.I.6, #293, Simon de La Loubère to Leibniz, Paris, 1 June 1691.

26. A.I.7, #195, Simon de La Loubère to Leibniz, Paris, 3 October 1691.

27. A.I.7, #203, Leibniz to Simon de La Loubère, Hanover, 5/15 October 1691.

28. A.I.7, #195, Simon de La Loubère to Leibniz, Paris, 3 October 1691, 399. Lach, *Preface to Leibniz's "Novissima Sinica,"* 30, translated the passage even more starkly: "When the Chinese will have learned our sciences through these priests, Europe will no longer have an edge on them and that is where our superiority will end."

29. A.I.7, #181, Leibniz to Hiob Ludolf, Braunschweig, 5/15 September 1691, 366.

30. "So different between themselves and from ours, that one might say that they are another race of animals." A.I.7, #203, Leibniz to Simon de La Loubère, Hanover, 5/15 October 1691, 399. This "race" question is addressed below in chapter 7. Cf. Aarsleff, "Study and Use of Etymology in Leibniz," 99n39.

31. A.I.7, #312, Leibniz to Simon de La Loubère, [Hanover], 4 February 1692, 554. La Loubère responded that Athanasius Kircher had included "le Pater-noster en Indien." Kircher called the language "Brachmanicè." See the table on elements of the Sanskrit or Brahmanic language including the Pater Noster and the Ave Maria, hand-engraved by W. Vander Laegh, in Kircher, *China illustrata*, p. Bbb, inserted between pp. 162 and 163.

32. A.I.7, #312, Leibniz to Simon de La Loubère, [Hanover], 4 February 1692, 554.

33. A.I.7, #312, Leibniz to Simon de La Loubère, [Hanover], 4 February 1692, 553.

34. A.I.7, #225, Adam Adamandus Kochanski to Leibniz, Warsaw, 9 November 1691. Kochanski gleaned the title from Leibniz's text (Leibniz, "De solutionibus problematis Catenarii vel Funicularis," 439) as "Elements of Analytic Geometry." Leibniz responded that the work in question was simply his essay on the infinitesimal calculus, "Nova Methodus pro Maximis et Minimis." A.I.7, #267, Leibniz to Adam Adamandus Kochanski, Hanover, December 1691.

35. A.I.7, #267, Leibniz to Adam Adamandus Kochanski, Hanover, December 1691, 487, lines 3, 13.

36. A.I.7, #267, Leibniz to Adam Adamandus Kochanski, Hanover, December 1691, 488.

37. A.I.7, #295, Adam Adamandus Kochanski to Leibniz, Warsaw, 8/18 January 1692, 534.

38. A.I.7, #347, Leibniz to Adam Adamandus Kochanski, [Wolfenbüttel?], 11/21 March 1692, 613.

39. A.I.7, #295, Adam Adamandus Kochanski to Leibniz, Warsaw, 8/18 January 1692, 553–54. In answer to the editorial question on p. 553 whether "Nestorius" was the Nikifor Venjukov attested by Bittner and Groß and by Philippe Avril, Gaston Cahen, in *Histoire des Relations de la Russe avec la Chine*, 21n, has Nikifor Venjukov as one of two secretaries who accompanied Nikolai Gavrilovich Spathari on the embassy to Beijing from 1675 to 1678. For Venjukov's second journey to Beijing, in the 1680s, in advance of the embassy of F. A. Golovin, see below, chapter 9.

40. Avril, *Voyage* (1692), 240–41, described an itinerary given to the Polish court by the former Muscovite ambassador to China Nicephore. Subsequently drawn up as a map (*routier*) by d'Ablancour, it was perfect aside from the omission of latitude and longitude. See below, chapter 4. See also Baddeley's argument in *Russia, Mongolia, China*, 2:214–17, that part of Avril's map was taken from Spathari but mistakenly inverted; and Bagrow, "First Russian Maps of Siberia."

41. A.I.7, #317, Adam Adamandus Kochanski to Leibniz, Warsaw, 9 February 1692.

42. A.I.7, #347, Leibniz to Adam Adamandus Kochanski, [Wolfenbüttel?], 11/21 March 1692.

43. A.I.7, #348, Leibniz to Claudio Filippo Grimaldi, [Wolfenbüttel(?), 21(?) March 1692].

44. A.I.7, #172, Hiob Ludolf to Leibniz, Gotha, 21/31 August 1691. Ludolf had last written in January of 1689 (A.I.5, #208, Leibniz to Hiob Ludolf, Viennas, 10/20 January 1689). Leibniz had written to Ludolf a year and a half later (A.I.5, #372, 13/23 July 1690) but had not received a response.

45. A.I.7, #172, Hiob Ludolf to Leibniz, Gotha, 21/31 August 1691. On Leibniz and Ludolf's earlier discussions in the 1680s, see above, chapter 2.

46. A.I.7, #181, Leibniz to Hiob Ludolf, Braunschweig, 5/15 September 1691.

47. A.I.7, #181, Leibniz to Hiob Ludolf, Braunschweig, 5/15 September 1691; translation from Aarsleff, "Study and Use of Etymology in Leibniz," 99n39. Cf. the translation of this sentence in Waterman, *Leibniz and Ludolf on Things Linguistic*, 22.

48. A.I.7, #181, Leibniz to Hiob Ludolf, Braunschweig, 5/15 September 1691.

49. A.I.6, #164, Christian Franz Paullini to Leibniz, Eisenach, 12/22 December 1690.

50. Tentzel, *Monatliche Unterredungen*.

51. A.I.6, #182, Leibniz to Johann Petrus Ericus, Hanover, 12/22 January 1691. Ericus complained in A.I.6, #149, Venice, 1 December 1690. The review of Ericus, *Renatum e mysterio principium philologicum*, was in *Monatliche Unterredungen* 1 (May 1689): 509.

52. Bernard and Leibniz had corresponded briefly in 1680 and would correspond again in 1693. See Carhart, "Leibniz and Edward Bernard on Language and European Origins." Leibniz inserted the extract, copied in his own hand, between the leaves of A.I.7, #185, Antonio Magliabechi to Leibniz, Florence, 22 September 1691. An editorial note to A.I.7, #221, Leibniz to Christian Franz Paullini, Hanover, 26 October / 5 November 1691, 416n, refers to the extract as LBr.595 (Magliabechi) Bl.67; A.I.7, #185, is archived as LBr.595 Bl.66 u. 68.

53. Bernard, *Etymologicon Britannicum*, unpaginated.

54. A.I.7, #221, Leibniz to Christian Franz Paullini, Hanover, 26 October / 5 November 1691.

55. A.I.7, #239, Christian Franz Paullini to Leibniz, Eisenach, 20/30 November 1691; A.I.7, #244, Wilhelm Ernst Tentzel to Leibniz, Gotha, 24 November / 4 December 1691; A.I.7, #248, Christian Franz Paullini to Leibniz, Eisenach, 26 November / 6 December 1691.

56. A.I.7, #247, Leibniz to Hiob Ludolf, Hanover, 26 November / 6 December 1691.

57. A.I.7, #352, Leibniz to Wilhelm Ernst Tentzel, Hanover, 16/26 March 1692.

58. Leibniz had voiced the same complaint to Kochanski in A.I.7, #267, December 1691. It is not clear what Leibniz's source was for Müller's residency at Breslau (Silesia) in 1689. After a career in Berlin, Müller is known to have retired to his home at Stettin (Pomerania).

59. Megiser, *Specimen quinquaginta* (1603).

60. Lüdekenius, *Oratio Orationum*.

61. Mechovia, *Descriptio Sarmatiarum Asianae & Europianae*; Herberstein, *Rerum Muscoviticarum commentarii*.

62. Busbequius, *Legationis Turcicae epistolae quatuor*.

63. Piccolomini, *Asiae Europaeque elegantissima description*, 70–71.

64. For Magliabechi's biography and further bibliography, see Garfagnini, "Antonio Magliabechi fra erudizione e cultura." There is a series of three manuscript biographies of Magliabechi by Anton Francesco Marmi in the Biblioteca Nazionale Centrale di Firenze. For a reading of these and the construction of an image of him modeled on the Greek cynic philosopher Diogenes the Dog, see Callard, "Diogène au service des princes." Some of the letters from Magliabechi's *Nachlass* were published as *Clarorum Germanorum ad Ant. Magliabechium nonnullosque alios Epistolae*.

65. Löffler, "Antonio Magliabechi."

66. Koch, "Some Old-Time Old-World Librarians," 246.

67. A.III.3, #II, [end of December 1679]; A.I.4, #459, 4/14 January 1686.

68. Introduction to A.I.5, xliv–v.

69. A.I.6, #151, Henri Justel to Leibniz, [London], 24 November / 4 December 1690.

70. A.III.4, #291, Christian Huygens to Leibniz, The Hague, 18 November 1690.

71. A.I.6, #76, Leibniz to Landgraf Ernst von Hessen-Reinfels, [Hanover, 10(?) January 1691], 154–55.

72. A.I.6, #233, Leibniz to Magliabechi, [Hanover], 13/23 March 1691.

73. A.I.6, #275, Antonio Magliabechi to Leibniz, Florence, 5 May 1691. Unfortunately, Leibniz to Antonio Magliabechi, 12/22 June 1691, in which he responded to Cuper's report about Witsen's map, is lost. Magliabechi wrote two responses to that lost letter, A.I.6, #327, Antonio Magliabechi to Leibniz, Florence, 13 July 1691; and A.I.6, #339, Antonio Magliabechi to Leibniz, Florence, 28 July 1691.

74. A.I.5, #342, Leibniz to Landgraf Ernst von Hessen-Reinfels, [Hanover, end of June 1690].

75. A.I.5, #382, Daniel Papebroch to Leibniz, Antwerp, 7 August 1690. Papebroch later confirmed (incorrectly) that Grimaldi was traveling by way of Portugal. A.I.6, #168, Daniel Papebroch to Leibniz, [Antwerp, December 1690].

76. A.I.6, #233, Leibniz to Magliabechi, [Hanover], 13/23 March 1691.

77. Probably Nikifor Venyoukov, of whom Leibniz would hear again the next year in A.I.7, #295, Adam Adamandus Kochanski to Leibniz, Warsaw, 8/18 January 1692; and of whom he would learn a third time when he read Philippe Avril's travel report.

78. The map does not survive, to my knowledge, but it was likely drawn in seventeenth-century Muscovite perspective, with the south at the top of the map and the city of Tobolsk featured prominently in the center. See Kivelson, *Cartographies of Tsardom*. See also Bagrow, "First Russian Maps of Siberia."

79. Johan Gabriel Sparwenfeld signed a contract with the Amsterdam publisher Jean Blaeu Jr. dated 10 June 1689. Blaeu printed a series of maps under the title *Geographia Blaviana* down to

1708. Sparwenfeld also signed a contract with Giacomo Cantelli of Modena, who sent him a letter (8 November 1692) acknowledging receipt of the manuscript for a map of Siberia. See Bagrow, "Sparwenfeld's Map of Siberia."

80. A.I.6, #315, Antonio Magliabechi for Leibniz, undated, but archived between the leaves of A.I.6, #314, Antonio Magliabechi to Leibniz, Florence, 30 June 1691.

81. A.I.6, #315, Antonio Magliabechi for Leibniz, undated.

82. A.I.6, #315, Antonio Magliabechi for Leibniz, undated.

83. A.I.6, #315, Antonio Magliabechi for Leibniz, undated. One of Barentsz's crew, Gerrit de Veer, did publish an account of the voyage, *Diarium nauticum* (1598), Translated into English in 1609.

84. A.I.7, #168, Leibniz to Antonio Magliabechi, [Wolfenbüttel?], 23 August 1691.

85. Dehergne, *Répertoire des Jésuites de Chine*, 120, citing *Sinica franciscana*, vol. 6, *Relationes et epistolas primorum Fratrum Minorum Italorum in Sinis, saeculis XVII et XVIII*, ed. George Mensaert (Quaracchi-Florence: Collegium S. Bonaventurae, 1961), 136.

86. A.I.7, #295, Adam Adamandus Kochanski to Leibniz, Warsaw, 8/18 January 1692, 533.

87. A.I.7, #317, Adam Adamandus Kochanski to Leibniz, Warsaw, 9 February 1692.

88. Antognazza, *Leibniz*, 302–3.

89. A.I.7, #362, Leibniz to Giovanni Giusto Ciampini, [Hanover, 2 April 1692].

90. A.I.8, #135, Tommaso Fantoni to Leibniz, Rome, 7 May 1692.

91. Plattner, *Pfeffer und Seele*, 185. Plattner attributed the quotation to Moritz Schuch, SJ, but cited no source.

92. Villotte, *Voyages d'un Missionaire de la Compagnie de Jesus*, 210–11.

93. A.I.7, #348, Leibniz to Claudio Filippo Grimaldi, [Wolfenbüttel(?), 21(?) March 1692], Latin edition and German translation in Leibniz, *Der Briefwechsel mit den Jesuiten in China*, no. 7, pp. 41–43.

94. A.I.7, #348, Leibniz to Claudio Filippo Grimaldi, [Wolfenbüttel(?), 21(?) March 1692], 620.

95. According to the Personen-Datenbank of the Leibnizarchiv, the first reference to Hieronymus Megiser, *Specimen quinquaginta* (1603), was in A.I.7, #312, Leibniz to Simon de La Loubère, [Hanover], 4 February 1692, that is, a month earlier.

96. A.I.7, #348, Leibniz to Claudio Filippo Grimaldi, [Wolfenbüttel(?), 21(?) March 1692], 618. He had employed the same metaphor in A.I.5, #263, Leibniz to Giovanni Laureati, Rome, 12 November 1689. See Perkins, *Leibniz and China*; and also Perkins, "Leibniz's Exchange with the Jesuits of China," 150.

97. A.I.7, #348, Leibniz to Claudio Filippo Grimaldi, [Wolfenbüttel(?), 21(?) March 1692], 619.

98. A.I.7, #348, Leibniz to Claudio Filippo Grimaldi, [Wolfenbüttel(?), 21(?) March 1692], 621–22.

99. A.I.7, #348, Leibniz to Claudio Filippo Grimaldi, [Wolfenbüttel(?), 21(?) March 1692], 622.

100. A.I.7, #352, Leibniz to Wilhelm Ernst Tentzel, Hanover, 16/26 March 1692; A.I.8, #157, Adam Adamandus Kochanski to Leibniz, Warsaw, 30 May 1692.

101. A.I.8, #156, Leibniz to Tommaso Fantoni, Hanover, 29 May 1692.

102. A.I.8, #162, Leibniz to Henri Justel, [Hanover], 24 May / 3 June 1692.

103. A.I.8, #181, Henri Justel to Leibniz, [London], 21 June 1692.

104. Megiser, *Specimen quadraginta* (1593), printed the Lord's Prayer in forty languages and dialects; a second edition, *Specimen quinquaginta* (1603), added the Lord's Prayer in ten more languages, as well as linguistic samples of other biblical texts. A.I.8, #156, Leibniz to Tommaso Fantoni, Hanover, 29 May 1692.

105. Ludekenius, *Oratio Orationis*. "I don't know why he put that name on his work," Ludolf said of Müller to Leibniz the same month. A.I.8, #185, Hiob Ludolf to Leibniz, Frankfurt am Main, 14/24 June 1692. A century later Adelung, *Mithridates*, 657, scoffed that Müller's eighty-three was not "fermè centum" (nearly a hundred).

Chapter 4 • The Jesuit Search for an Overland Route to China (1685–1689)

1. Witek, *Controversial Ideas in China and in Europe*, 13–39; Thomaz de Bossièrre, *Jean-François Gerbillon*.

2. Foss, "European Sojourn of Philippe Couplet and Michael Shen Fuzong." Couplet landed in Holland on 8 October 1683, and he returned home to Flanders for 1683–84. There a Flemish Jesuit, Pieter Thomas Van Hamme, joined Couplet and his Chinese colleague, Michael Shen, as an assistant. His journal records Couplet's European tour: Van Hamme, *Het leven van Petrus-Thomas Van Hamme*. In early September 1684 the trio reached Paris. On 15 September they traveled to Versailles, where they met King Louis XIV in the afternoon (apparently not a formal audience). They exchanged gifts, and Shen and Van Hamme were dismissed. Alone with Couplet, the king and his confessor, François d'Aix de La Chaise, also a Jesuit, asked many questions about China. Pinot, *Documents inédits*, 7–9. The interview went well enough that the next day Couplet and his companions were given a special audience before the king at a meal. Shen was asked to recite in Chinese the Pater Noster, the Ave Maria, and the Credo. Then, in a special gesture usually reserved for ambassadors and princes of the highest rank, the king ordered the fountains at Versailles to be played for them. Avril must have leapt at the opportunity to travel to China. Within two weeks of the Versailles audience, on 30 September 1684, Couplet departed Paris for Lyon, with Avril a member of the entourage.

3. Verbiest, "Catalogus Patrum Societatis Jesu." For other editions, see Pfister, *Notices biographiques et bibliographiques*, p. 311, no. 114, "Philippe Couplet," entry 11, "Catalogus Patrum S.J."

4. Avril, *Voyage* (1692), 3–4.

5. Needham, *Science and Civilization in China*, vol. 3; Keizo, *Hsü Kuang-ch'i and Astronomical Reform*; Goodman and Grafton, "Ricci, the Chinese, and the Toolkits of Textualists." For the Calendar Case (1661–69), see Zurndorfer, "One Adam"; Collani, "Adam Schall von Bell und die Naturwissenschaften in China"; Collani, "Theologie und Wissenschaft in China"; and Qi, "Role of the Directorate of Astronomy." See also Brockey, *Journey to the East*, 225–32.

6. Ferdinand Verbiest to the Fathers of the Society in Europe, Beijing, 15 August 1678, in Verbiest, *Correspondance*, no. 30, pp. 230–53. [Verbiest], "Extrait d'une Lettre tres-curieuse," is a loose French paraphrase of the original Latin.

7. Verbiest to the Fathers of the Society in Europe, Beijing, 15 August 1678, in Verbiest, *Correspondance*, 235; [Verbiest], "Extrait d'une Lettre tres-curieuse," 200.

8. [Verbiest], "Extrait d'une Lettre tres-curieuse," 204–5.

9. This latter quotation was added for effect by the editor of the *Mercure galant*; [Verbiest], "Extrait d'une Lettre tres-curieuse," 210. It does not appear in the Latin original, Verbiest, *Correspondance*, where it should be on p. 245. Nor does the statement appear in *Astronomia Europaea*, edited by Philippe Couplet, where Verbiest recounted the Calendar Case at greater length (chs. 1–11).

10. Ferdinand Verbiest to Jean Dominique Gabiani, [Beijing, 1681], in Verbiest, *Correspondance*, no. 35, p. 341. The Rites Controversy over the accommodation of Christian doctrine to Chinese customs, relevant to both this chapter and the last, has been addressed thoroughly by other scholars and is beyond the scope of this book. See Mungello, *Curious Land*; and Mungello, *Chinese Rites Controversy*.

11. Ferdinand Verbiest to Charles de Noyelle, Beijing, 2 August 1682, and Verbiest to Philippe Couplet, Beijing, 4 October 1683, in Verbiest, *Correspondance*, no. 46, pp. 380–403, and no. 51, pp. 422–35, for the itineraries of 1682 and 1683, respectively.

12. Ronald S. Love summarized these overland efforts from India in "In Search of a Passage to China."

13. François d'Aix de La Chaise to Ferdinand Verbiest, [Paris, 26 February 1685], in Verbiest, *Correspondance*, no. 60, pp. 484–85.

14. Khatris from around the city of Multan in Punjab, Pakistan. See Dale, *Indian Merchants and Eurasian Trade*, 57–59.

15. Avril, *Voyage* (1692), 98–99. For the anti-Russian policies of the Kalmyk Ayuki Khan, 1683–97, see Khodarkovsky, *Where Two Worlds Met*.

16. Avril referred to the Chinese port of entry as *Soczi*. It was probably Suzhou (Jiuquan) in Gansu, where Bento de Goës had languished at the beginning of the seventeenth century.

17. Avril, *Voyage* (1692), 103–6.

18. Avril, *Voyage* (1692), 106–7, 113.

19. Gerbillon, "Voyages en Tartarie," 116.

20. Gerbillon, "Voyages en Tartarie," 129. Several months later he still had not learned to appreciate Mongolian cuisine. On the return from Nerchinsk in September 1688, another banquet was thrown by a tributary Mongol prince. "The food was the usual Tartaric fare. . . . I didn't eat much that night." Gerbillon, "Voyages en Tartarie," 165.

21. Gerbillon, "Voyages en Tartarie," 129.

22. Gerbillon, "Voyages en Tartarie," 129. For the Muscovite context of whether *yasak* constituted tribute or trade, see Khodarkovsky, *Russia's Steppe Frontier*, 60–63. On the Kangxi emperor's quashing the abuse of diplomatic immunity by tributary princes, who under their protection brought to Beijing hundreds of merchants (the very system by which Philippe Avril hoped to enter China), see Perdue, *China Marches West*, 141–43.

23. Avril, *Voyage* (1692), 142.

24. Gerbillon, "Voyages en Tartarie," 137–40.

25. Gerbillon, "Voyages en Tartarie," 139.

26. Carhart, *Science of Culture in Enlightenment Germany*, 135.

27. Perdue, *China Marches West*; Berholz, *Partition of the Steppes*. For the Kalmyck wing, see Khodarkovsky, "Russian Peasant and Kalmyk Nomad"; Khodarkovsky, "Uneasy Alliance"; Khodarkovsky, *Where Two Worlds Met*; and Khodarkovsky, "Ignoble Savages and Unfaithful Subjects."

28. Golovin's embassy report (1689) in Demidova and Miasnikov, *Russko-kitaiskie otnosheniia v XVII veke*, 2:550 (MS p. 1078r).

29. Avril, *Voyage* (1692), 113–14.

30. David, "Revolutionis in regno Moscovitico."

31. Avril, *Voyage* (1692), 161–63.

32. Avril, *Voyage* (1692), 234–36.

33. Avril, *Voyage* (1692), 163.

34. Avril, *Voyage* (1692), 170–75.

35. Avril, *Voyage* (1692), 165–70; Lincoln, *Conquest of a Continent*, citing Fisher, *Russian Fur Trade*.

36. Avril, *Voyage* (1692), 168.

37. Avril, *Voyage* (1692), 170.

38. Avril, *Voyage* (1692), 219–25.

39. Bittner and Groß, *Repertorium der diplomatischen Vertreter*, 437.

40. Avril, *Voyage* (1692), 218.

Chapter 5 • Seeking the Languages of Grand Tartary (August 1693–December 1694)

1. Leibniz to Ezechiel Spanheim, August 1693, letter lost; A.I.9, #375, Ezechiel Spanheim to Leibniz, Berlin, 5/15 September 1693. See also Loewe, *Ezechiel Spanheim*.

2. The Brandenburg court's copy of Witsen's *Nieuwe Lantkaarte* is probably the exemplar now at Staatsbibliothek zu Berlin (Unter den Linden), Sig.: Kart. D1715 (1 map in 9 parts on 6 sheets, 126×116 cm).

3. A.I.9, #375, Ezechiel Spanheim to Leibniz, Berlin, 5/15 September 1693.

4. A.I.9, #375, Ezechiel Spanheim to Leibniz, Berlin, 5/15 September 1693.

5. A.I.9, #403, Ezechiel Spanheim to Leibniz, Berlin, 28 October / 7 November 1693.

6. A.I.9, #437, Leibniz to Ezechiel Spanheim, [Hanover, 19 December 1693].

7. Procopius, *History of the Wars* 1.12; A.I.9, #437, Leibniz to Ezechiel Spanheim, [Hanover, 19 December 1693].

8. Leibniz's letters to Spanheim of August and September 1693 are both missing. Their content is inferred from Spanheim's responses.

9. A.I.9, #403, Ezechiel Spanheim to Leibniz, Berlin, 28 October / 7 November 1693.

10. A.I.9, #437, Leibniz to Ezechiel Spanheim, [Hanover, 19 December 1693].

11. A.I.7, #317, Adam Adamandus Kochanski to Leibniz, Warsaw, 9 February 1692.

12. A.I.8, #157, Adam Adamandus Kochanski to Leibniz, Warsaw, 30 May 1692.

13. A.I.8, #156, Leibniz to Tommaso Fantoni, Hanover, 29 May 1692, 262. Cf. a draft (possibly never sent) to a Polish envoy at Paris (or London?), A.I.8, #374, Leibniz to——(?), [Hanover, second half of 1692].

14. A.I.9, #428, Leibniz to Wilhelm Ernst Tentzel, Hanover, 3/13 December 1693.

15. A.I.10, #98, Leibniz to Carlo Mauritio Vota, [Hanover, December 1693].

16. A.I.10, #98, Leibniz to Carlo Mauritio Vota, [Hanover, December 1693].

17. A.I.10, #98, Leibniz to Carlo Mauritio Vota, [Hanover, December 1693].

18. A.I.9, #441, Christophe Chappuzeau to Leibniz, Celle, 14/24 December 1693; A.I.10, #112, Johann Caspar von Bothmer to Leibniz, Vienna, 30 December 1693 / 9 January 1694.

19. A.I.6, #113, Carl August von Alvensleben to Leibniz, Madrid, 24 September / 4 October 1690.

20. A.I.8, #206, Leibniz to Nicolas Toinard, [Hanover, July(?) 1692].

21. A.I.9, #341, Leibniz to Gustav Daniel Schmidt, [Hanover], 12/22 July 1693.

22. A.I.9, #394, Gustav Daniel Schmidt to Leibniz, Stockholm, 7/17 October 1693.

23. A.I.10, #123, Leibniz to Gustav Daniel Schmidt, [Clausthal 6/16 January 1694].

24. A.I.10, #145, Leibniz to Daniel Larroque, Hanover, 26 January / 5 February 1694; Avril, *Voyage* (1692), 178.

25. A.I.10, #208, Theobald Isensehe to Leibniz, Rome, 3 April 1694.

26. A.I.10, #346, Leibniz to Adam Adamandus Kochanski, Hanover, 10/20 August 1694.

27. A.I.10, #192, Heinrich Hüneken to Leibniz, The Hague, 24 March 1694.

28. A.I.14, #322, Leibniz to Andreas Morell, Hanover, 1/11 October 1697.

29. A.I.10, #211, Leibniz to Nicolaas Witsen, [Hanover], 26 March / 5 April 1694.

30. Müller, *Gottfried Wilhelm Leibniz und Nicolaas Witsen*, 6.

31. A.I.10, #268, Nicolaas Witzen to Leibniz, Amsterdam, 27 May 1694.

32. David, "Revolutionis in regno Moscovitico."

33. Avril, *Voyage* (1692), 294.

34. A.I.11, #124, Leibniz to Bodo von Oberg, [Wolfenbüttel, first half of January 1695]; A.I.11, #205, Leibniz to J. J. J. Chuno, Hanover, 21 February /3 March 1695; A.I.11, #334, Leibniz to Antoine Verjus, [Hanover], 27 May / 6 June 1695; A.I.14, #235, Leibniz to Pierre Lefort, Hanover, 3/13 August 1697; A.I.14, #236, Leibniz for Pierre Lefort, *Desiderata circa Linguas quae sub Imperio Moschico et in vicinis regionibus usurpantur*.

35. A.I.11, #125, Leibniz for Bodo von Oberg, *Desiderata circa linguas quorundam populorum.*

36. Trautmann, *Languages and Nations*, 32–33.

37. A.I.11, #125, Leibniz for Bodo von Oberg, *Desiderata circa linguas populorum*, sec. 1. In fact, a generation before Leibniz, Johannes De Laet identified everyday terminology for items

universal to the human condition (body parts, family relations, facts of nature, etc.) as a core vocabulary suitable for comparing the relations between nations. This was in order to combat haphazard and coincidental sound repetitions that might be used spuriously to connect unrelated nations (as in Hugo Grotius's dissertation on the origin of the American nations). See Metcalf, "Indo-European Hypothesis," in Metcalf, *On Language Diversity*, 47–49.

38. In fact this rumor, which Leibniz had heard from Kochanski and read in Piccolomini, *Asiae Europaeque elegantissima descriptio*, was much older than Leibniz imagined, as the monk in question was the thirteenth-century William Rubruck and hence could not have been a Jesuit but was a Franciscan.

39. Note the absence of any reference to a Thracian language, which would be hypothesized in the eighteenth and early nineteenth centuries.

40. A.I.11, #124, Leibniz to Bodo von Oberg, [Wolfenbüttel, first half of January 1695].

41. A.I.11, #155, Bodo von Oberg to Leibniz, Vienna, 23 January / 2 February 1695.

42. According to editorial notes at A.I.11, ##125 and 302, the sheet of paper was torn in half (probably by Leibniz) and the annotated "Desiderata" filed at Hanover as Niedersächsische Landesbibliothek Ms IV 441a, Bl.14–15. Erasmi said in his letter that Podestà had annotated the broad margins, but there is no indication in the editorial notes of such annotations on the document. The other half of the sheet, Podestà's essay, was filed in the same folder, Ms IV 441a, Bl.9. According to the editorial notes, Leibniz himself entitled this page "Sprachinformationen über die Tatarei," but throughout the correspondence I have seen *Tartarei* consistently used, not dropping the first *r*, which became the custom in Europe later in the eighteenth century. Both documents—perhaps the entire folder—were destroyed in the Second World War.

43. A.I.11, #302, Johann Baptist Podestà for Leibniz, [Vienna, end of April / beginning of May 1695].

44. A.I.11, #312, Daniel Erasmi von Huldenberg to Leibniz, Vienna, 4/14 May 1695.

Chapter 6 · Assembling *Novissima Sinica* (February–September 1695)

1. Leibniz, *Leibniz Korrespondiert mit China*; Leibniz, *Der Briefwechsel mit den Jesuiten in China*. See also Li and Poser, *Das Neueste über China*.

2. Carhart, "Leibniz between Paris, Grand Tartary, and the Far East."

3. Perkins, *Leibniz and China*.

4. A.I.11, #149, Leibniz to Johann Jacob Julius Chuno, Hanover, 20/30 January 1695.

5. For cameralism, see Raeff, *Well-Ordered Police State*; and Wakefield, *Disordered Police State*.

6. A.I.11, #176, J. J. J. Chuno to Leibniz, Berlin, 2/12 February 1695; A.I.11, #180, J. J. J. Chuno to Leibniz, Berlin, 5/15 February 1695; Johann Reyer to J. J. J. Chuno, Königsberg, 18/28 February 1695, in Guerrier, *Leibniz in seinen Beziehungen zu Russland und Peter dem Grossen*, Documents, no. 3.

7. A.I.11, #205, Leibniz to J. J. J. Chuno, Hanover, 21 February / 3 March 1695.

8. A.I.11, #220, J. J. J. Chuno to Leibniz, Berlin, 2/12 March 1695, reporting that the "Desiderata" had been sent to Reyer at Königsberg and Hacki at Danzig.

9. Reyer to Chuno, Königsberg, 18 February 1695, in Guerrier, Documents, no. 3. Regarding the eighteen weeks, Bittner and Groß, *Repertorium der diplomatischen Vertreter*, 56, accounts for twelve of those weeks, listing Reyer as having presented his credentials in Muscovy on 2 December 1688 and his final audience on 20 February 1689.

10. A.I.11, #287, Leibniz to J. J. J. Chuno, [Hanover, 21–24(?) April 1695]. A minor correction to the Akademie Ausgabe volume: Of all the letters I have examined, this is the only one whose inferred date is patently incorrect. The editorial note suggests this letter was a response to #284 and was answered with #293. This is not true. In A.I.11, #293, Chuno enclosed the Isbrandt Ides itinerary, which Leibniz mentions here as having been received. In #284 Leibniz also responded to the #293 news that Vinnius was postmaster, not prime minister. Therefore A.I.11, #287, was written *after* #293.

11. François d'Aix de La Chaise to Ferdinand Verbiest, Paris, 15 January 1688, in Verbiest, *Correspondance*, no. 78, pp. 546–50.

12. Goüye, *Observations physiques et mathématiques*. Leibniz mentions the book in A.I.8, #207, Leibniz to Adam Adamandus Kochanski, [Hanover, July 1692], but it is not clear that he yet possessed it. Leibniz certainly possessed it by November 1692, when he wrote to Landgraf Ernst, "The Reverend Father Verjus has done me the honor to send me through the Comte Ballati the physical and mathematical observations of Jesuit missionaries gone to Siam and China." A.I.8, #207, 349n.

13. See, for example, A.I.9, #152, Leibniz to Adam Adamandus Kochanski, [Hanover, second half of January 1693]; A.I.10, #98, Leibniz to Carlo Mauritio Vota, [Hanover, December 1693]; and A.I.11, #205, Leibniz to J. J. J. Chuno, Hanover, 21 February / 3 March 1695.

14. A.I.10, #298, Leibniz to Reinier Leers, Hanover, [second half of June 1694]; for Leibniz's list of the names of nineteen intended recipients, see p. 448n.

15. A.I.11, #249, Antoine Verjus to Leibniz, Paris, 30 March 1695.

16. A.I.11, #224, Leibniz to Christophe Brosseau, [Hanover], 8/18 March 1695.

17. A.I.11, #244, Christophe Brosseau to Leibniz, [Paris], 28 March 1695.

18. A.I.11, #249, Antoine Verjus to Leibniz, Paris, 30 March 1695.

19. A.I.11, #249, Antoine Verjus to Leibniz, Paris, 30 March 1695.

20. The Muscovites were not the only opponents of the Jesuits. Two years earlier Verjus had been sent a map of Korea depicting its eight provinces showing the cities of each according to a hierarchy of four ranks. Also included was an "exact description" of the Korean language, government, and manners. The report still had not arrived. "I believe it was lost and captured by the Dutch," Verjus told Leibniz. A.I.11, #249, Antoine Verjus to Leibniz, Paris, 30 March 1695, postscript. In the 1730s, Du Halde printed the report as "Histoire abrégée de la Corée" in *Description géographique, historique, chronologique, politique, et physique*, 4:538–60.

21. Goüye, *Observations physiques et mathématiques*.

22. A.I.11, #249, Antoine Verjus to Leibniz, Paris, 30 March 1695. He seems to be referring to Verbiest's *Elementa linguae Tartaricae*, discussed below.

23. A.I.11, #249, Antoine Verjus to Leibniz, Paris, 30 March 1695.

24. Dehergne, *Répertoire des Jésuites de Chine*, 260.

25. A.I.11, #249, Antoine Verjus to Leibniz, Paris, 30 March 1695.

26. A.I.11, #235, J. J. J. Chuno to Leibniz, Berlin, 12/22 March 1695, with enclosures from Reyer (possibly part of Gerbillon's letters, but this cannot be confirmed from Chuno's text alone) and news of Poland from Abbé Hacki of Oliva.

27. A.I.11, #284, J. J. J. Chuno to Leibniz, Berlin, 9/19 April 1695. Verbiest's Tartaric grammar turned out to be very slow in coming. Chuno sent the first three of nine pages with A.I.11, #443, J. J. J. Chuno to Leibniz, Berlin, 24 August / 3 September 1695. Six months later Leibniz was still holding those pages hostage while he awaited the rest of the manuscript. See A.I.12, #144, Leibniz to J. J. J. Chuno, Hanover, 1/11 December 1695; and A.I.12, #294, Leibniz to J. J. J. Chuno, Hanover, 23 February / 4 March 1696.

28. A.I.11, #289, Leibniz to Antoine Verjus, [Wolfenbüttel], 15/25 April 1695.

29. A.I.14, #138, Leibniz to J. J. J. Chuno, Hanover, 21/31 May 1697.

30. A.I.14, #162, Johannes Clerff to Leibniz, Sassenberg, 25 June 1697.

31. A.I.11, #477, Leibniz to J. J. J. Chuno, [Hanover, second(?) half of September 1695]. He continued, "There are also some very clever people [in the Jesuit order] especially in France, but in Germany they are very deposed and lack any Subjects of great distinction. I have found that the Father Menegatti, Confessor to the Emperor, is effectively the most capable as well as the most learned of all those whom I have met in Germany."

32. A.I.11, #289, Leibniz to Antoine Verjus, [Wolfenbüttel], 15/25 April 1695.

33. A.I.11, #289, Leibniz to Antoine Verjus, [Wolfenbüttel], 15/25 April 1695.

34. A.I.11, #289, Leibniz to Antoine Verjus, [Wolfenbüttel], 15/25 April 1695.

35. Jean François Gerbillon to François d'Aix de La Chaise, Nipchou/Nerchinsk, 2 September 1689, *Magazin für die neue Historie und Geographie*, ed. A. F. Busching, 16 (1782): 544.

36. Jean François Gerbillon to Antoine Verjus, Nipchou/Nerchinsk, 22 August–8 September 1689, *Magazin für die neue Historie und Geographie*, ed. A. F. Busching, 14 (1780): 407.

37. Gerbillon to La Chaise, 2 September 1689, in Busching's *Magazin* 16 (1782): 541, 544.

38. Gerbillon to La Chaise, 2 September 1689, in Busching's *Magazin* 16 (1782): 544.

39. Gerbillon to La Chaise, 2 September 1689, in Busching's *Magazin* 16 (1782): 540–42.

40. Gerbillon to La Chaise, 2 September 1689, in Busching's *Magazin* 16 (1782): 541. Gerbillon made no mention of the opposition of Dominicans and Franciscans to the Jesuit strategy of accommodation.

41. Gerbillon to Verjus, 22 August–8 September 1689, in Busching's *Magazin* 14 (1780): 388.

42. Gerbillon to Verjus, 22 August–8 September 1689, in Busching's *Magazin* 14 (1780): 391.

43. Gerbillon to La Chaise, 2 September 1689, in Busching's *Magazin* 16 (1782): 543.

44. Leibniz, *Novissima Sinica*, 169–74.

45. A.IV.6, #61, Novissima Sinica, [April 1697/1699], 450.

46. A.I.11, #284, J. J. J. Chuno to Leibniz, Berlin, 9/19 April 1695.

47. Bayer, "De litteratura Mangiurica"; Pelliot, "Le véritable auteur des 'Elementa Linguae Tartaricae.'" See also Aalto, "Elementa Linguae Tartaricae"; and Verbiest, *Elementa linguae Tartaricae*, trans. Aalto.

48. Verbiest, *Elementa linguae Tartaricae*, in Thévenot, *Relations de divers voyages curieux*. Aalto translated the prefatory letter "ad lectorem" in *Tractata Altaica*, 8–10.

49. Verbiest, *Elementa linguae Tartaricae*, in Thévenot, *Relations de divers voyages curieux*.

50. A.I.11, #398, Leibniz to J. J. J. Chuno, Hanover, 15/25 July 1695.

51. A.I.11, #443, J. J. J. Chuno to Leibniz, Berlin, 24 August / 3 September 1695; A.I.11, #477, Leibniz to J. J. J. Chuno, [Hanover, second(?) half of September 1695].

52. A.I.12, #144, Leibniz to J. J. J. Chuno, Hanover, 1/11 December 1695; A.I.12, #294, Leibniz to J. J. J. Chuno, Hanover, 23 February / 4 March 1696.

53. A.I.12, #407, Leibniz to J. J. J. Chuno, Hanover, 2/12 June 1696.

54. A.I.13, #170, Leibniz to J. J. J. Chuno, Hanover, 12/22 September 1696.

55. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697.

56. A.I.13, #366, Leibniz to J. J. J. Chuno, Hanover, 24 February / 6 March 1697, 612.

57. A.I.13, #382, J. G. Sparwenfeld to Leibniz, Stockholm, 3/13 March 1697, 642.

58. A.I.14, #474, J. J. J. Chuno to Leibniz, Berlin, 2/12 December 1697. In the last sentence of the letter Chuno indicated that the pages were numbered 15–22.

59. A.I.14, #474, J. J. J. Chuno to Leibniz, Berlin, 2/12 December 1697.

60. Aalto, "Elementa Linguae Tartaricae," 3.

61. A.I.21, #139, J. J. J. Chuno to Leibniz, Berlin, 25 April 1702.

62. Johann Reyer had received Brandt's report from Andreas Winnius, who said that Brandt was willing to provide more information on Siberian languages if Leibniz would send his "Desiderata" in German. But Reyer admitted, looking at the meager pages that he enclosed to Chuno, "I hope that he will have more than contained in the relation I enclose here." A.I.11, #293, J. J. J. Chuno to Leibniz, Berlin, 16/26 April 1695. Brandt excused the brevity of his report by stating that the leader of the diplomatic delegation, Ysbrandt Ides, intended to publish a full memoire of his own, complete with copperplate engravings.

I have found no evidence that Leibniz translated his "Desiderata" into German for Adam Brandt. To Chuno, Leibniz acknowledged that although Brandt "might be able to give some light," it seemed unlikely that he would have the capacity "to dissect the kinds of languages." Nevertheless, Leibniz was grateful for Brandt's brief description of the embassy's itinerary, finding even that to be helpful. A.I.11, #287, Leibniz to J. J. J. Chuno, [Hanover, 21–24(?) April 1695].

63. A.IV.6, #58, Relation wie Isbrand seinen Weg nacher China genommen [March/April 1695(?)], 378, lines 12–13; A.IV.6, #59, Aufzeichnung zu Brandts Relation, [not before 25 April 1695], 381.

64. Leibniz, *Leibniz Korrespondiert mit China*, no. 1, pp. 1–3; Leibniz, *Der Briefwechsen mit den Jesuiten in China*, no. 1, pp. 1–5.

65. A.IV.6, #59, Aufzeichnung zu Brandts Relation, [not before 25 April 1695], 382.

66. Leibniz dates the Baikov expedition to 1656. Se Cahen, *Histoire des Relations*, 20n.

67. [Baikov], "Voyage d'un ambassadeur," in Thévenot, *Recueil de voyages.* (In later editions, Thévenot added other reports, with separate page numbering for each.) An English translation is in Baddeley, *Russia, Mongolia, China*. Leibniz would receive a second version of Baikov's itinerary from the Muscovite court in the fall of 1697. A manuscript extract in the Leibniz archive at Hanover is due to be printed in A.IV.7, #105, 710–16.

68. Thomas, "De la Tartarie, frontiere de la Chine." The Akademie Ausgabe editors note that Avril, *Voyage* (1692), 139, cited Thomas's longitude of Beijing, but I did not find such a citation there.

69. A.I.11, #249, Antoine Verjus to Leibniz, Paris, 30 March 1695. Apparently Verjus had forgotten that he had already had a copy of Goüye's *Observations physiques et mathématiques* sent to Leibniz. Leibniz first mentioned the work in A.I.9, #152, Leibniz to Adam Adamandus Kochanski, [Hanover, second half of January 1693], stating that it had come from Verjus. Two copies of Goüye's work are housed in the Leibniz Archive at Hanover.

70. By modern reckoning, Nerchinsk is at 51°59′ N (only 14 degree-minutes off from Gerbillon's calculation) and 116°35′ E of Greenwich, which indeed places it just slightly east of Beijing.

71. "Die Chinesischen gesandten sind zu lande biß dahin kommen; ein theil aber ihrer leute und Sachen zu waßer, einen strohm hinauff, so nach osten laufft welchen ich so wenig als Nipchou in H[errn] Witsens charte finde." A.IV,6, #59, Aufzeichnung zu Brandts Relation, [not before 25 April 1695], 384, lines 13–16.

72. A.I.10, #268, Nicolaas Witzen to Leibniz, Amsterdam, 27 May 1694. See also A.I.11, #205, Leibniz to J. J. J. Chuno, Hanover, 21 February / 3 March 1695.

73. Leibniz, "Extract aus einem Leibnizischen Memorial," 544; Leibniz, *Opera Omnia*, 6, pt. 2: 186.

74. A.IV.6, #59, Aufzeichnung zu Brandts Relation, [not before 25 April 1695], 379–84, here 382.

75. A.IV.6, #58, Relation wie Isbrand seinen Weg nacher China genommen [March/April 1695(?)], 378, line 23.

Chapter 7 · Johan Gabriel Sparwenfeld and Gothic Origins (November 1695–December 1697)

1. A.I.6, #113, Carl August von Alvensleben to Leibniz, Madrid, 24 September /4 October 1690.

2. A.I.6, #315, Magliabechi for Leibniz, undated; sent as enclosure with A.I.6, #314, Antonio Magliabechi to Leibniz, Florence, 30 June 1691. See also Jacobowsky, *J. G. Sparwenfeld* (1932), 29–40; and Bagrow, "Sparwenfeld's Map of Siberia."

3. A.I.7, #362, Leibniz to Giovanni Giusto Ciampini, [Hanover, 2 April 1692].

4. A.I.8, #206, Leibniz to Nicolas Toinard, [Hanover, July(?) 1692].

5. A.I.8, #350, Leibniz to Gustav Daniel Schmidt, [Hanover], 30 November / 10 December 1692.

6. A.I.8, #350, Leibniz to Gustav Daniel Schmidt, [Hanover], 30 November / 10 December 1692.

7. A.I.9, #198, Leibniz to Edward Bernard, Hanover, 7/17 March 1693.

8. A.I.9, #341, Leibniz to Gustav Daniel Schmidt, [Hanover], 12/22 July 1693.

9. Bittner and Gross, *Repertorium der diplomatischen Vertreter*, 498, names Thomas Knipercrona as the Swedish resident at Moscow (documented 1689–1700) and Ludvig Fabritius as the envoy to Persia (documented at Muscovy, 29 August 1697). Fabritius's mission was to announce a gift of three hundred cannon to be deployed against the Ottomans.

10. A.I.9, #341, Leibniz to Gustav Daniel Schmidt, [Hanover], 12/22 July 1693.

11. A.I.9, #394, Gustav Daniel Schmidt to Leibniz, Stockholm, 7/17 October 1693.

12. A.I.10, #123, Leibniz to Gustav Daniel Schmidt, [Clausthal, 6/16 January 1694].

13. A.I.10, #368, Gustav Daniel Schmidt to Leibniz, Stockholm, 1/11 September 1694.

14. A.I.11, #211, Leibniz to Gustav Daniel Schmidt, [Hanover, 26 February / 8 March 1695]; A.I.11, #259, Gustav Daniel Schmidt to Leibniz, Stockholm, 23 March / 2 April 1695. Sparwenfeld married Antoinetta Sophia Hildebrand (1655–1704), daughter of Henrik Jacob Hildebrand, camerarius and member of the college of commerce. The couple, who had been in correspondence during much of Sparwenfeld's Gothic voyage, married on 26 March 1695. Their first daughter, Christine, was born four months later, in July 1695. See Jacobowsky, *J. G. Sparwenfeld*, 251–55.

15. A.I.12, #110, Gustav Daniel Schmidt to Leibniz, Stockholm, 6/16 November 1695; A.I.12, #113, Alexander Theodor von Ehrenburg to Leibniz, Stockholm, 9/19 November 1695.

16. According to A.I.15, #140, J. G. Sparwenfeld to Leibniz, Stockholm, 1/11 January 1698, Sparwenfeld had spent nine months in Madrid. Sparwenfeld annotated the date of a gift copy of Ferdinand Verbiest's *Typus Eclipsis 1671* from China given to him by Philippe Couplet at Madrid on 17 December 1689. He must, therefore have been in that city through August 1690. In July 1690 Couplet gave him copies of several other documents from China, possibly on the occasion of his imminent departure. See Golvers, *Ferdinand Verbiest and the Chinese Heaven*, 211–12.

17. A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696, 339.

18. Besnier, "Discours sur les étymologies Françoises," xv.

19. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 540.

20. It is not clear which version of a *Lexicon Slavonicum* Sparwenfeld presented to Innocent XII at his audience with the pope in June 1692. When he was studying Slavonic and Russian in Moscow in 1686, Sparwenfeld paid for manuscript copies of a half dozen Latin-Slavonic dictionaries. One of them was a compilation by Epifanij Slavineckij, a Ukranian monk who had translated the sixteenth-century Latin dictionary of Ambrosius Calepinus into Church Slavonic with augmentations in Ukranian. Calepinus's dictionary was a standard teaching tool in western Europe and had been translated into many vernacular languages to aid Latin students. A Latinist at Kiev, Slavineckij appropriated Calepinus for Slavonic in the 1640s.

Birgegård, *J. G. Sparwenfeld and His Lexicon Slavonicum*, 20–24, speculates that Slavineckij used a Basel polyglot edition from the late sixteenth or early seventeenth century that translated Latin entry words into eleven languages, including Polish. Slavineckij's innovation was to add a twelfth column in Church Slavonic with augmentations from Ukranian. On the basis of his lexicographical authority, Slavineckij was called to Moscow in 1649 as part of a team charged with revising the Bible in the Church Slavonic language as translated from Greek. There he revised his dictionary to make it more strongly Church Slavonic by removing the vernacular Ukranian definitions. In addition to its being the "high" language of religious liturgy, Church Slavonic was also employed as the lingua franca of politics and administration throughout much of the Muscovite Empire and the broader Slavic-speaking world. Sparwenfeld's Slavonic teacher in Moscow, a Polish translator employed at the Foreign Affairs Bureau named Godzalovskij, let Sparwenfeld see a manuscript copy of the revised version of Slavineckij's dictionary, and Sparwenfeld paid a copyist the fairly substantial sum of five roubles to make him a copy.

Sparwenfeld subsequently made substantial revisions of his own to the Slavineckij dictionary, and it is clear in his correspondence with Leibniz that he considered his version of the

manuscript to be his own work. On the occasion of his audience with Pope Innocent XII in 1692, Sparwenfeld presented a copy of his version of Slavineckij's translation of Calepinus to the Congregation for the Propagation of the Faith with the understanding that the dictionary would be printed. This was more than just a generous donation; Sparwenfeld was interested in the type library that the Propaganda owned, since apparently in Sweden there was no printer who had Cyrillic type. Although it never was printed, through the 1690s Sparwenfeld remained in touch with the Propaganda and received the assurances of a theologian, a Slavic speaker originally from Spalato in Dalmatia, that progress toward publication was being made. See Birgegård, *J. G. Sparwenfeld and His Lexicon Slavonicum*, 76–84, 93–98.

21. A.I.12, #104, Johan Gabriel Sparwenfeld to Leibniz, Stockholm, 4/14 November 1695, 121. Blaeu's engraved plates were for the *Atlas maior, sive Cosmographia Blauiana* (1662), with 594 maps. It had originally been titled *Theatrum Orbis Terrarum, sive, Atlas novus* (1635), after Ortelius's *Theatrum Orbis Terrarum* (1570). There were several subsequent editions, some local only. I have been unable to discover exactly what the Blaeu Press, by then in its third generation, was working on in the 1690s.

22. According to Bagrow, "Sparwenfeld's Map of Siberia," Sparwenfeld drew his data from Nikolai Gavrilovich Spathari's reports. On the maps collected by Bagrow and left to Harvard (including Spathari's reproduced in black and white), see Kivelson, *Cartographies of Tsardom*.

23. Sparwenfeld, *Catalogus centuriae librorum rarissimorum*.

24. A.I.9, #394, Gustav Daniel Schmidt to Leibniz, Stockholm, 7/17 October 1693.

25. Junius, *Glossarium Ulphila-Gothicum*, ed. Stiernhielm (1670); Stiernhielm, *D. N. Jesu Christi SS. Evangelia* (1671), including "De linguarum originae Praefatio" on Gothic origins. The exemplars at Heidelberg, Karlsruhe, Stuttgart, and Wolfenbüttel are bound together. The most serious threat to the Gothic-origins hypothesis was Philippus Cluverius, *Germaniae Antiquae* (1616), which proposed a Celtic stock as the common source of the Germanic peoples, including the Goths. Stiernhielm rebutted Cluverius's thesis in *Anticluverius*. See also Ebbinghaus, "Gothic Lexicography."

26. Johannes Magnus, *Historia de omnibus Gothorum Sueonumque regibus*; Olaus Magnus, *Historia de Gentibus Septentrionalibus*. See also Johannesson, *Renaissance of the Goths*; and Brough, *Goths and the Concept of Gothic*.

27. Grotius, *Historia Gothorum, Vandalorum et Langobardorum*. A Sparwenfeld manuscript still exists at Uppsala, but that work was never printed.

28. A.I.12, #104, Johan Gabriel Sparwenfeld to Leibniz, Stockholm, 4/14 November 1695.

29. A.I.12, #155, Leibniz to J. G. Sparwenfeld, Hanover, 6/16 December 1695.

30. A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696.

31. The orientalist François Pétis de la Croix's translation of Šaraf-ad-Dīn 'Alī Yazdī's life of Tamurlane, *Histoire De Timur-Bec, Connu Sous Le Nom Du Grand Tamerlan, Empereur Des Mogols & Tartares: Avec des Notes Historiques, & Cartes Geographiques; En forme de Journal Historique de ses Victoires et Conquêtes dans l'Asie & dans l'Europe*, would appear at Paris in several editions, but not before 1722. Leibniz died in 1716; the translator died in 1713.

32. A.I.12, #155, Leibniz to J. G. Sparwenfeld, Hanover, 6/16 December 1695.

33. A.I.12, #155, Leibniz to J. G. Sparwenfeld, Hanover, 6/16 December 1695; A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696: "Runes are truly very ancient, were abolished with the advent of Christianity."

34. Wurm, *Runir seu Danicae literatura antiquissima, vulgo Gothica dicta*; Lastanosa, *Museo de las medallas desconocidas españolas*. I have not seen either of these works; I am following the editorial note annotating A.I.12, #155, at 215, lines 13–15.

35. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697.

36. A.I.12, #155, Leibniz to J. G. Sparwenfeld, Hanover, 6/16 December 1695.

37. A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696, esp. 341.

38. A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696, 339.

39. A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696, 343. The commonplace in linguistics that monosyllabic word roots indicated the antiquity of a language (with Chinese usually cited as the example) went back at least to Goropius Becanus and Juan Luis Vives in the sixteenth century and remained current at least through August Schleicher in the nineteenth century.

40. A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696, 343.

41. A.I.15, #140, J. G. Sparwenfeld to Leibniz, Stockholm, 1/11 January 1698, 185. The Notker manuscript is St. Gallen, Stiftsbibliothek, Cod. Sang. 21, *Translatio barbarica psalterii Notkeri tertii (Althochdeutscher Psalter Notkers des Deutschen)*. Leibniz's edition was *Accessiones historicae* (1698). He did not include Notker.

42. A.I.12, #104, Johan Gabriel Sparwenfeld to Leibniz, Stockholm, 4/14 November 1695, 121. A critical edition of the complete *Sächsische Weltchronik* appeared in *Monumenta Germaniae Historica*, *Deutsche Chroniken*, vol. 2 (1877); Sparwenfeld's fifteenth-century manuscript version was "rediscovered" ca. 1960. See the editorial note at A.I.12, #104, 120.

43. A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696, 341. Sparwenfeld repeated the speculation about "sister" colonies in A.I.13, #382, J. G. Sparwenfeld to Leibniz, Stockholm, 3/13 March 1697, 641.

44. *Venerabilis Baedae Historiam ecclesiasticam gentis Anglorum* 1.15; I do not know which edition Leibniz was using. An *opera omnia* of Bede had been printed at Cologne by Hieratus & Gymnicus in 1612, although several others had also been printed.

45. A.I.14, #435, Leibniz to J. G. Sparwenfeld, [Hanover, 29 November(?) 1697], 760.

46. A.I.15, #140, J. G. Sparwenfeld to Leibniz, Stockholm, 1/11 January 1698, 187.

47. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 542.

48. A.I.13, #382, J. G. Sparwenfeld to Leibniz, Stockholm, 3/13 March 1697.

49. A.I.14, #208, Leibniz to J. G. Sparwenfeld, Wolfenbüttel, 13/23 July 1697. It appears that Leibniz sent the rare book itself, not a copy. See A.I.14, #16, Leibniz to Lorenz Hertel, Wolfenbüttel, 13/23 July 1697. The volume he sent is Herzog August Bibliothek Wolfenbüttel Cod. Guelf. 9.10. Aug. 4° (Heinemann Nr. 2992), a fifty-four-leaf manuscript on sealskin that Herzog August acquired at auction. The Old Norse texts are *Eyrbyggia Saga* and *Egilssaga*.

50. A.I.15, #140, J. G. Sparwenfeld to Leibniz, Stockholm, 1/11 January 1698, 185. The edition and translation was Snorri Sturluson, *Heims Kringl*a, ed. Peringskiöld (1697), in Old Norse (Icelandic), Swedish, and Latin. Sparwenfeld's statement is confusing, because *Eyrbyggia Saga* and *Egilssaga* are freestanding tales (like *Njal's Saga*) about early Icelandic settlers, not Norwegian kings. As such, they are not part of the *Heimskringla* collection. Snorri Sturluson is frequently taken to be the author of *Egilssaga* (on stylistic grounds) but not of *Eyrbyggia Saga*. See A.I.15, #35, Lorenz Hertel to Leibniz, Wolfenbüttel, 19/29 March 1698.

51. A.I.14, #208, Leibniz to J. G. Sparwenfeld, Wolfenbüttel, 13/23 July 1697.

52. A.I.14, #208, Leibniz to J. G. Sparwenfeld, Wolfenbüttel, 13/23 July 1697, 339, 341.

53. The works included Sparwenfeld, "Chrises sive judicia insignium undique gentium scriptorum exoticorum" (Ms. Uppsala Univ. Bibl. H. 284); a Psalter in Icelandic; Stiernhielm's edition of Ulfilas's Gothic translation of the four Gospels; and Stiernhielm's *Anticluverius*, as well as two items for Leibniz's *Codex Juris Gentium Diplomaticus*, Stiernhok's *De jure vetustu Sueonum et Gothorum* and a *pacta publica* defining the boundary between Sweden and Norway, and an unknown volume by Johannes Magnus.

54. Elias Brenner, *Thesaurus nummarium sueo-gothicorum* (Stockholm: Billingsley, 1691), acknowledged in A.I.14, #208, Leibniz to J. G. Sparwenfeld, Wolfenbüttel, 13/23 July 1697, 342.

55. Cochlaeus, *Vita Theoderici Regis quondam Ostrogothorum et Italiae*. About Peringskiold's edition of Cochlaeus's life of Theoderic the *Penny Cyclopedia*, vol. 24 (London: C. Knight, 1842), 321, groused, "Cochlaeus has written without any just criticism; and Peringskjöld has

shown no historical ability in his additions, which, however, contain very interesting matter relative to the language and the antiquities of the Goths."

56. A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696, 344. The book was *Articae horulae succisivae, de Latino-carniolana literatura*, by Adam Bohorizh (1584).

57. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 543.

58. A.I.14, #208, Leibniz to J. G. Sparwenfeld, Wolfenbüttel, 13/23 July 1697, 340; A.I.14, #164, Wilhelm Ernst Tentzel to Leibniz, Gotha, 17/27 June 1697.

59. Grafton, *Bring Out Your Dead,* 176.

60. A.I.14, #435, Leibniz to J. G. Sparwenfeld, [Hanover, 29 November(?) 1697], 755.

61. Grafton, *Bring Out Your Dead*, 179.

62. A.I.14, #435, Leibniz to J. G. Sparwenfeld, [Hanover, 29 November(?) 1697], 755–56. The extract consisted of three pages in Toppeltinus de Medgyes, *Origines et Occasus Transsylvanorum* (1667).

63. A.I.15, #140, J. G. Sparwenfeld to Leibniz, Stockholm, 1/11 January 1698, 184. Leibniz did finally deliver Bohorizh's *Arcticae horulae succissivae de Latino-carniolana literatura* to Sparwenfeld. A young Slovak-Hungarian named Matthias Zabany (b. 1674, who had recently graduated from the gymnasium at Danzig, knew of the work and was able to read it thanks to his mother tongue. Leibniz employed Zabany for about a year, charging him chiefly with the task of copying the book for Sparwenfeld. In April 1699 he sent both the copy and its copyist up to Sparwenfeld at Stockholm. Zabany would work there in Sparwenfeld's employ for the next six years, compelling Sparwenfeld to work seriously on his *Lexicon Slavonicum* in order to keep his new employee occupied. Birgegård, *J. G. Sparwenfeld and His Lexicon Slavonicum*, 64–69, 89–91.

64. A.I.14, #435, Leibniz to J. G. Sparwenfeld, [Hanover, 29 November(?) 1697], 760.

65. A.I.12, #104, Johan Gabriel Sparwenfeld to Leibniz, Stockholm, 4/14 November 1695, 122.

66. A.I.12, #104, Johan Gabriel Sparwenfeld to Leibniz, Stockholm, 4/14 November 1695, 122.

67. A.I.12, #155, Leibniz to J. G. Sparwenfeld, Hanover, 6/16 December 1695, 217.

68. Sanson, *Voyage ou rélation de l'état present du Royaume de Perse* (1695), 258. A German translation was published in Dresden in the same year.

69. Sanson, *Voyage ou rélation de l'état present du Royaume de Perse*, 256–57.

70. A.I.12, #155, Leibniz to J. G. Sparwenfeld, Hanover, 6/16 December 1695, 217.

71. A.I.12, #155, Leibniz to J. G. Sparwenfeld, Hanover. 6/16 December 1695, 217–18.

72. A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696, 342.

73. A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696, 342.

74. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 544.

75. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 544.

76. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 544.

77. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 544.

78. Eigen and Larrimore, *German Invention of Race*. Fenves, "What 'Progress' Has Race-Theory Made since the Times of Leibniz and Wolff?," 16–17, directly addresses this exchange between Leibniz and Sparwenfeld.

79. A.I.12, #104, Johan Gabriel Sparwenfeld to Leibniz, Stockholm, 4/14 November 1695, 122.

80. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 545. Blumenbach, *De generis humani varietate nativa*, sec. 83, cited this letter from Leibniz to Sparwenfeld. See also Antje Sommer and Werner Conze, "Rasse," in Brunner, Conze, and Koselleck, *Geschichtliche Grundbegriffe*, 5:142–43.

81. Bernier, "Nouvelle division de la terre."

82. Stuurman, "François Bernier and the Invention of Racial Classification." See also Poliakov, *Aryan Myth*, 138.

83. See Schiebinger, "Anatomy of Difference."

84. Bernier, "Nouvelle division de la terre," 136–37.

85. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 545.

86. Nowhere did Bernier suggest that physical differences were the result of degeneration caused by geographical displacement, nor did he suggest an analogy between human beings and displaced animals and plants. Did Leibniz infer this causality himself, or was he remembering another text, different from Berniers?

Stuurman says that the version of Bernier's text published in the *Journal des Sçavans* was originally presented as a letter to the salonnière Mme de La Sablière in response to an essay by Martin Cureau de La Chambre (1594–1669) (or his son, Abbé Pierre Cureau de La Chambre [1640–1693]), a fellow salon participant. In fact it was the other way around. See Bernier, "Les 'Etrenes à Madame de La Sablière' de Bernier." The letter to Mme de La Sablière was dated 1688, four years after the essay appeared in the *Journal des Sçavans*. Moreover, the *Journal des Sçavans* version is identical, aside from a few punctuation changes, to the 1688 version. Even if Leibniz somehow got hold of that letter, Bernier was still not the source for the Carib-versus-Paraguayan observation.

87. A.I.13, #382, J. G. Sparwenfeld to Leibniz, Stockholm, 3/13 March 1697, 642. Unfortunately, the manuscript is garbled at precisely the place we are interested in.

88. "Les habitans de tous ces païs-là sont veritablement blancs; mais ils ont de larges épaules, le visage plat, un petit nez écaché, de petits yeux de porc, longs & enfoncez, & trois poils de barbe." Bernier, "Nouvelle division de la terre," 136.

89. A.I.13, #382, J. G. Sparwenfeld to Leibniz, Stockholm, 3/13 March 1697, 642. Note the omission of the first *r* in *Tatare*. A century later Catherine the Great's surgeon general, Georg Thomas von Asch, would complain to the Göttingen librarian Christian Gottlob Heyne, "How is it that in Germany and France, instead of Tătār, it is always written and spoken incorrectly as Tărtăr?" Staats- und Universitätsbibliothek Göttingen, Cod. Ms. Asch 1:II (1788/92), 31r (Asch to Heyne, St. Petersburg, 25 August / 5 September 1788).

90. Sparwenfeld had already suggested basically the same thing in his two previous letters. A.I.12, #104, Johan Gabriel Sparwenfeld to Leibniz, Stockholm, 4/14 November 1695, 122; A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696, 342.

91. A.I.13, #382, J. G. Sparwenfeld to Leibniz, Stockholm, 3/13 March 1697, 642.

92. A.I.15, #140, J. G. Sparwenfeld to Leibniz, Stockholm, 1/11 January 1698, 190.

93. A.I.15, #140, J. G. Sparwenfeld to Leibniz, Stockholm, 1/11 January 1698.

94. A.I.12, #104, Johan Gabriel Sparwenfeld to Leibniz, Stockholm, 4/14 November 1695, 122. See the discussion in Jacobowsky, *J. G. Sparwenfeld*, 38–40.

95. A.I.13, #225, J. G. Sparwenfeld to Leibniz, Stockholm, 11/21(?) November 1696, 341; A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 543.

96. Actually Kircher's claim of a replica at Rome was false. See Mungello, *Curious Land*, 171n112. Kircher himself did publish a reproduction of the monument's text in *China illustrata*, 31.

97. Michael Boim, SJ, in Kircher, *China illustrata*, 8. See also Mungello, *Curious Land*, 165–71; and esp. Pelliott, *L'Inscription nestorienne de Si-ngan-fou*.

98. Kircher, *China illustrata*, 29–30.

99. Kircher, *China illustrata*, 43.

100. A.I.8, #105, Leibniz to Paul Pellison-Fontanier, [Wolfenbüttel], 18/28 October 1692.

101. A.I.8, #112, Leibniz to Paul Pellisson-Fontanier, [Hanover, 21] November / 1 December 1692, 202–3.

102. A.I.9, #385, Leibniz to Daniel Larroque, [Hanover, second half of September 1693].

103. A.I.9, #411, Daniel Larroque to Leibniz, Paris, 14 November 1693. See also A.I.10, #145, Leibniz to Daniel Larroque, Hanover, 26 January / 5 February 1694.

104. A.I.9, #479, Leibniz to Antonio Magliabechi, Hanover, 29 December 1693, in the postscript, 711.

105. A.I.10, #231, Leibniz to Antonio Magliabechi, Hanover, 12/22 April 1694.

106. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 541.

107. A.I.13, #382, J. G. Sparwenfeld to Leibniz, Stockholm, 3/13 March 1697, 638.

108. A.I.14, #435, Leibniz to J. G. Sparwenfeld, [Hanover, 29 November(?) 1697], 759–60.

109. Magliabechi, *Catalogi Librorum*, entry 263, pp. 218–19. Magliabechi, *Clarorum Germanorum ad Ant. Magliabechium nonnullosque alios Epistolae*, 11:49, attributed it to d'Herbelot. These references and also the speculation about the 1420 embassy belong to the Akademie Ausgabe editors. See A.I.9, #479, Leibniz to Antonio Magliabechi, Hanover, 29 December 1693, 711n.

110. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 542.

111. A.I.13, #329, Leibniz to J. G. Sparwenfeld, Hanover, 29 January / 8 February 1697, 542.

112. A.I.14, #435, Leibniz to J. G. Sparwenfeld, [Hanover, 29 November(?) 1697], 761; Tomasinus, *Petrarcha redivivus*, 73. The entry is printed verbatim, crediting Fortunato Ulmo as the source, in Tomasinus, *Bibliothecae Venetae manuscriptae publicae et privatae*, 56.

113. A.I.14, #435, Leibniz to J. G. Sparwenfeld, [Hanover, 29 November(?) 1697], 761.

114. For the emergence of the Kipchak-Cuman confederacy in the mid-eleventh century and its dispersal in 1241 by the Mongol invasion, see Marquart, "Über das Volkstum der Komanen." For subsequent Cuman dynasties in Moldova, Wallachia, and the Balkans before the Ottoman conquest, see Vásáry, *Cumans and Tatars*.

115. A.I.14, #111, Leibniz to Bartolomeo Ortensio Mauro for Eustachio Mocenigo(?), [Hanover, 15 May 1697?]. See also A.I.14, #109, Leibniz to Bartolomeo Hortensio [*sic*] Mauro, Hanover, 5/15 May 1697; and A.I.14, #110, Leibniz to Bartolomeo Ortensio Mauro for Eustachio Mocenigo.

116. A.I.11, #152, Leibniz to Niccolò Bon, [Hanover, end of January 1695].

117. On 21 February 1697 Leibniz had not yet found his notes. A.I.13, #341, Leibniz to Bartolomeo Ortensio Mauro, Hanover. But by the time of letter A.I.14, #108, Leibniz to Bartolomeo Ortensio Mauro(?), [Wolfenbüttel or Hanover, second half of April to mid-May 1697], he had recovered them.

118. Tomasinus, *Petrarcha redivivus*, 71.

119. Timms, *Polymath of the Baroque*, 48–50.

120. A.I.14, #109, Leibniz to Bartolomeo Hortensio [*sic*] Mauro, Hanover, 5/15 May 1697.

121. Editorial note in heading to A.I.14, #169, Leibniz to Bartolomeo Ortensio Mauro for Eustachio Mocenigo, [Hanover, mid-May to June 1697], 289.

122. A.I.14, #169, Leibniz to Bartolomeo Ortensio Mauro for Eustachio Mocenigo, [Hanover, mid-May to June 1697], Leibniz's emphasis.

123. A.I.13, #14, Kurfürst Ernst August for Leibniz, Linsburg, 22 August / 1 September 1696.

124. A.I.14, #111, Leibniz to Bartolomeo Ortensio Mauro for Eustachio Mocenigo(?), [Hanover, 15 May 1697?].

125. A.II.3, #115, Michel Angelo Fardella to Leibniz, Padua, 22 May 1697.

126. A.II.3, #118, Michel Angelo Fardella to Leibniz, Venice, 7 June 1697.

127. A.II.3, #122, Michel Angelo Fardella to Leibniz, Venice, 14 June 1697.

128. A.II.3, #122, Michel Angelo Fardella to Leibniz, Venice, 14 June 1697.

129. A.II.3, #131, Michel Angelo Fardella to Leibniz, Venice, 25 July [1697].

130. A.II.3, #126, Michel Angelo Fardella to Leibniz, Venice, 28 June [1697].

131. A.I.14, #208, Leibniz to J. G. Sparwenfeld, Wolfenbüttel, 13/23 July 1697, 340.

132. A.II.3, #126, Michel Angelo Fardella to Leibniz, Venice, 28 June [1697].

133. A.II.3, #126, Michel Angelo Fardella to Leibniz, Venice, 28 June [1697]; A.II.3, #128, Michel Angelo Fardella to Leibniz, Venice, 5 July [1697].

134. A.II.3, #128, Michel Angelo Fardella to Leibniz, Venice, 5 July [1697].

135. A.II.3, #128, Michel Angelo Fardella to Leibniz, Venice, 5 July [1697]; A.II.3, #129, Michel Angelo Fardella to Leibniz, Venice, 12 July 1697.

136. A.II.3, #130, Michel Angelo Fardella to Leibniz, [Venice, 19 July 1697].

137. A.II.2, #107, Leibniz to Michel Angelo Fardella, [Hanover, end of March 1691], 402, line 17, and 402n. I am skeptical of the Akademie editors' identification of Giulio Giustiniani as "le pere procureur du Monastere." Unless he was a priest, why would Leibniz refer to him as "pere"?

138. A.II.2, #107, Leibniz to Michel Angelo Fardella, [Hanover, end of March 1691], 401.

139. A.II.2, #107, Leibniz to Michel Angelo Fardella, [Hanover, end of March 1691], 401.

140. Grafton, *Forgers and Critics*; Knowles, *Great Historical Enterprises*.

141. Agostino Fortunio, *Historiam Camaldulensium, pars posterior* (Venice: Guerraea, 1579), bk. 4, ch. 1, p. 149 (the page is cited by the Academy editors). Leibniz quoted the notice in the *Historia Camaldulensis* as reading, "Anno 1107. praeerat coenobio carcerum Andreas presbyter, cui Henricus Dux Guelfonis filius Longobardorum legem profitendo dono dedit donaticum in Clusulella die 14 Octobr." A.II.2, #107, Leibniz to Michel Angelo Fardella, [Hanover, end of March 1691], 400.

142. A.II.2, #107, Leibniz to Michel Angelo Fardella, [Hanover, end of March 1691], 402.

143. A.II.3, #130, Michel Angelo Fardella to Leibniz, [Venice, 19 July 1697].

144. A.II.3, #131, Michel Angelo Fardella to Leibniz, Venice, 25 July [1697]. Cf. A.I.14, #239, Leibniz to Bartolomeo Ortensio Mauro, [Hanover], 4/14 August 1697.

145. A.II.3, #135, Michel Angelo Fardella to Leibniz, Venice, 2 August [1697].

146. A.II.3, #139, Michel Angelo Fardella to Leibniz, Venice, 22 August 1697.

147. A.II.3, #143, Leibniz to Michel Angelo Fardella, [September 1697].

148. *Alphabetum Persicum, Comanicum et Latinum* (Venice: Bibl. Marciana Cod. Lat. 549); Klaproth, *Mémoires relatifs à l'Asie*, 3:113–256; *Codex Cumanicus*, ed. Grønbech. See also Drüll, *Der Codex Cumanicus*; and MacKenzie, "Codex Cumanicus."

Chapter 8 · The Grand Embassy of Peter the Great (Summer–Fall 1697)

1. Lach, *Preface to Leibniz's "Novissima Sinica"*; Lach, "Leibniz and China"; Li, *Die christliche China-Mission*; Li and Poser, *Das Neueste über China*; Merkel, *G. W. von Leibniz und die China-Mission*; Merkel, *Leibniz und China*.

2. A.I.14, #86, Leibniz to Jakob Wilhelm Imhof, Hanover, 26 April / 6 May 1697.

3. A.I.14, #87, Leibniz to Hiob Ludolf, Hanover, 26 April / 6 May 1697.

4. Leibniz to Johannes Clerff, Hanover, 27 April 1697. Not found, the letter is known from a reference in A.I.14, #162.

5. A.I.14, #91, Leibniz to Etienne Chauvin, Hanover, 26 April / 6 May 1697.

6. A.I.14, #94, Leibniz to Ezechiel Spanheim, Hanover, 27 April / 7 May 1697.

7. A.I.14, #84, Leibniz to J. J. J. Chuno, Hanover, 26 April / 6 May 1697, 145.

8. A.I.14, #84, Leibniz to J. J. J. Chuno, Hanover, 26 April / 6 May 1697, 146. He wrote essentially the same thing to other Protestant recipients, such as in A.I.14, #93, Leibniz to Jacob Hop, Hanover, 27 April / 7 May 1697. He repeated the phrase "singing fables to the deaf" in A.I.14, #86, Leibniz to Jakob Wilhelm Imhof, Hanover, 26 April / 6 May 1697; in A.I.14, #195, Leibniz to Ezechiel Spanheim, Hanover, 4/14 July 1697, 325; and in other letters.

9. A.I.13, #366, Leibniz to J. J. J. Chuno, Hanover, 24 February / 6 March 1697.

10. A.I.11, #205, Leibniz to J. J. J. Chuno, Hanover, 21 February / 3 March 1695.

11. A.I.14, #125, J. J. J. Chuno to Leibniz, Königsberg, 11/21 May 1697.

12. A.I.14, #138, Leibniz to J. J. J. Chuno, Hanover, 21/31 May 1697. See March, "Farce, satire et science." Italian comedy was judged to be so unedifying that in a fit of piety, according to

Leibniz, Louis XIV had banned it earlier that month, May 1697. Leibniz also cited the comedy in the preface to his *Novissima Sinica*. Kochanski's report was in A.I.10, #270, Kochanski to Leibniz, Warsaw, 28 May 1694.

13. See the editorial note at A.I.14, #138, Leibniz to J. J. J. Chuno, Hanover, 21/31 May 1697, 239, for the citation of the manuscript report. The resident was Johann Wilhelm Heusch.

14. A.I.14, #136, Adam Adamandus Kochanski to Leibniz, Teplitz, 29 May 1697; A.I.14, #163, Adam Adamandus Kochanski to Leibniz, Teplitz, 16/26 June 1697.

15. A.I.14, #193, Leibniz to J. J. J. Chuno, Hanover, 4/14 July 1697, 318–19.

16. A.I.14, #195, Leibniz to Ezechiel Spanheim, Hanover, 4/14 July 1697.

17. A.I.13, #128, Gustav Daniel Schmidt to Leibniz, Stockholm, 30 July / 9 August 1696.

18. A.I.14, #224, Leibniz to Francesco Palmieri, Hanover, 25 July / 4 August 1697.

19. A.I.14, #229, Francesco Palmieri to Leibniz, [Salzhemmendorf or Coppenbrügge, 5–7(?) August 1697].

20. A.I.14, #225, Leibniz to François Lefort, [Hanover, 4(?) August 1697].

21. A.I.14, #235, Leibniz to Pierre Lefort, Hanover, 3/13 August 1697, 385.

22. In fact the reality was more complicated. The Czar's story was apparently about King Alexander IV of Imereti, on the Black Sea coast of Georgia, who was king under Ottoman hegemony (1683–90), although the Ottomans deposed him when he transferred his loyalty to Persia in 1690. He was restored a year later, then overthrown by his father-in-law ("Onkel" according to the Akademie Ausgabe editors), Prince Giorgi-Malakia Abashidze, in 1695, and delivered to a Persian anti-king, who executed him. See Lang, *Last Years of the Georgian Monarchy*.

23. Czar Peter would continue to cultivate his relationship with the two electresses by sending them Siberian furs: martens for Sophie Charlotte of Brandenburg (A.I.14, #295, Leibniz to Friedrich von Walter, Hanover, 14/24 September 1697); a woven damask trimmed with sable for Sophie of Hanover (A.I.14, #337, Leibniz to Jacob Hop, [Hanover, 15(?) October 1697], 576, editorial note). For her part, Sophie of Hanover found Czar Peter to be a good person by nature, attributing merely to education his unusual characteristics (A.I.14, #295, Leibniz to Friedrich von Walter, Hanover, 14/24 September 1697, first sentence of second paragraph).

24. Wilson, *Peter the Great*, 45–46, translates an account of the soirée by Electress Sophie of Hanover.

25. A.I.14, #235, Leibniz to Pierre Lefort, Hanover, 3/13 August 1697.

26. A.I.14, #456, Johann Theodor Heinson to——(?) for Leibniz, Melle, 27 November / 7 December 1697, editorial note.

27. A.I.14, #288, Pierre Lefort to Leibniz, Amsterdam, 10/20 September 1697. Pierre seems to have represented Golovin's understanding correctly. Nicolaas Witsen, whose source was also Golovin, reported that "Kalmuckke and Mogale is practically the same language." A.I.14, #344, Nicolaas Witsen to Leibniz, Amsterdam, 16 October 1697.

28. A.I.14, #288, Pierre Lefort to Leibniz, Amsterdam, 10/20 September 1697.

29. A.I.14, #338, Leibniz to Pierre Lefort, [Hanover], 5/15 October 1697.

30. A.I.14, #357, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 18 October 1697, 614.

31. A.I.10, #345, Leibniz to Nicolaas Witsen, Hanover, 9/19 August 1694. On this occasion too Leibniz had placed essentially the same request with Witsen: Lord's Prayers with interlinear translations plus any vocabulary lists pertaining to "Scythian languages" within the Muscovite realm.

32. A.I.14, #272, Leibniz to Nicolaas Witsen, Wolfenbüttel, 27 August / 6 September 1697.

33. A.I.14, #93, Leibniz to Jacob Hop, Hanover, 27 April / 7 May 1697.

34. Leibniz's letter to Hop was dated 6 September, the same date as his letter to Witsen. The letter is lost, but its existence and date are known from Hop's response, A.I.14, #280, Jacob Hop to Leibniz, Amsterdam, 7/17 September 1697.

35. A.I.14, #288, Pierre Lefort to Leibniz, Amsterdam, 10/20 September 1697.

36. A.I.14, #337, Leibniz to Jacob Hop, [Hanover, 15(?) October 1697].

37. A.I.14, #337, Leibniz to Jacob Hop, [Hanover, 15(?) October 1697].

38. Waterman, *Leibniz and Ludolf on Things Linguistic*.

39. By 1697 Spener had been called from Frankfurt to the Saxon court at Dresden, fallen from grace, and subsequently taken up residence in Berlin. Following his sojourn in Holland, Heinrich Wilhelm would travel to the new Pietist university at Halle and to the charitable foundation being built by Spener's colleague August Hermann Francke in Glaucha, the red-light district outside Halle. Heinrich Wilhelm Ludolf would reconnect with the Pietists by teaching a Russian-language course at the University of Halle in the winter and spring of 1698.

40. See Tetzner, *H. W. Ludolf und Russland*.

41. See Ludolf, *Grammatica Russica*.

42. A.I.14, #284, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 19 September 1697, 477.

43. A.I.14, #325, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 2/12 October 1697, 555.

44. A.I.14, #344, Nicolaas Witsen to Leibniz, Amsterdam, 16 October 1697.

45. A.I.14, #344, Nicolaas Witsen to Leibniz, Amsterdam, 16 October 1697.

46. A.I.14, #357, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 18 October 1697, 613.

47. A.I.14, #430, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 16/26 November 1697, 736.

48. A.I.14, #430, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 16/26 November 1697, 737.

49. Leibniz's November 1697 letter to Witsen is lost, but it is known from a reference in A.I.14, #430, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 16/26 November 1697, and from Witsen's response on 4 December.

50. A.I.14, #448, Nicolaas Witsen to Leibniz, Amsterdam, 4 December 1697.

51. A.I.14, #456, Johann Theodor Heinson to——(?) for Leibniz, Melle, 27 November / 7 December 1697.

52. Guerrier, *Leibniz in seinen Beziehungen zu Russland und Peter dem Grossen*, Documents, p. 15 (doc. 13).

53. Guerrier, Documents, p. 15 (doc. 13).

54. A.I.7, #295, Adam Adamandus Kochanski to Leibniz, Warsaw, 8/18 January 1692.

55. A.I.7, #347, Leibniz to Adam Adamandus Kochanski, [Wolfenbüttel?], 11/21 March 1692.

56. A.I.11, #205, Leibniz to J. J. J. Chuno, Hanover, 21 February / 3 March 1695. Chuno replied in A.I.11, #235, J. J. J. Chuno to Leibniz, Berlin, 12/22 March 1695. Leibniz wrote to Johann Reyer in July: "I have been told also that the Czar Peter has an intention of introducing in Muscovy the more polished fashions of our Europe"; and "This powerful Monarch could do great things in pushing the Tartars out of Crimea." A.I.11, #408, Leibniz to Johann Reyer, Hanover, 18/28 July 1695

57. A.I.14, #125, J. J. J. Chuno to Leibniz, Königsberg, 11/21 May 1697.

58. See, e.g., A.I.14, #19, Leibniz for Kurfürstin Sophie, [Hanover, beginning of August(?) 1697]; and Guerrier, *Leibniz in seinen Beziehungen zu Russland und Peter dem Grossen*, Documents, pp. 14–19 (doc. 13).

59. Lipski, "Foundation of the Russian Academy of Sciences."

60. A.I.7, #267, Leibniz to Adam Adamandus Kochanski, Hanover, December 1691; A.I.7, #312, Leibniz to Simon de La Loubère, [Hanover], 4 February 1692; A.I.7, #352, Leibniz to Wilhelm Ernst Tentzel, Hanover, 16/26 March 1692; A.I.10, #211, Leibniz to Nicolaas Witsen, [Hanover], 26 March / 5 April 1694; A.I.11, #205, Leibniz to J. J. J. Chuno, Hanover, 21 February / 3 March 1695; A.I.11, #289, Leibniz to Antoine Verjus, [Wolfenbüttel], 15/25 April 1695.

61. A.I.9, #421, Claudio Filippo Grimaldi to Leibniz, Goa, 6 December 1693.

62. A.I.7, #347, Leibniz to Adam Adamandus Kochanski, [Wolfenbüttel?], 11/21 March 1692. Leibniz alleged that the king of Poland had issued such an executive order in A.I.8, #156, Leibniz to Tommaso Fantoni, Hanover, 29 May 1692; A.I.8, #162, Leibniz to Henri Justel, [Hanover], 24 May / 3 June 1692; and A.I.8, #374, Leibniz to——(?), [Hanover, second half of 1692].

63. A.I.14, #288, Pierre Lefort to Leibniz, Amsterdam, 10/20 September 1697.

64. A.I.14, #338, Leibniz to Pierre Lefort, [Hanover], 5/15 October 1697.

65. A.I.14, #325, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 2/12 October 1697, 555–56.

66. A.I.14, #357, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 18 October 1697, 612.

67. A.I.14, #430, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 16/26 November 1697, 736–37.

68. Plans for academies of science were contagious around 1700. Joachim Bouvet proposed one for China just a few years after Leibniz's proposal for Muscovy and the founding of a real one at Berlin. See Collani, *Eine wissenschaftliche Akademie für China*. Joachim Bouvet's letters to Leibniz and Bignon dated 15 September 1704 arrived in Rome in 1709 and never reached the two men. There is a copy of Bouvet's letter in the Bibliothèque nationale de France.

69. Guerrier, Documents, p. 17 (doc. 13).

70. Guerrier, Documents, p. 19 (doc. 13).

71. Guerrier, Documents, p. 19 (doc. 13).

72. Goody, *Theft of History*.

73. A.I.4, #147, Kammer zu Hannover, Braunschweig-Lüneburg to Leibniz, 4/14 April 1685, notification of the duke's resolution to stop work on the Harz mines project. See Antognazza, *Leibniz*, 230n171. In an unpublished letter of 15 November 1706 Georg Ludwig ordered Leibniz to "withdraw from all negotiations whatsoever regarding the unification of the Lutheran and Reformed religions." Antognazza, *Leibniz*, 462n18. On the plan for Protestant union, see Murray, "Leibniz's Proposal for Theological Reconciliation"; and Hübner, "Negotium irenicum."

74. See above, chapter 3, under "Magliabechi–Fantoni–Grimaldi."

75. A.I.14, #284, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 19 September 1697, 478.

76. A.I.14, #325, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 2/12 October 1697, 557.

77. A.I.14, #357, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 18 October 1697, 612. See also A.I.14, #324, Friedrich von Walter to Leibniz, Wolfenbüttel, 1/11 October 1697.

78. A.I.14, #284, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 19 September 1697; A.I.14, #456, Johann Theodor Heinson to——(?) for Leibniz, Melle, 27 November / 7 December 1697.

79. A.I.14, #284, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 19 September 1697, 478; A.I.14, #357, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 18 October 1697, 612.

80. A.I.14, #456, Johann Theodor Heinson to——(?) for Leibniz, Melle, 27 November / 7 December 1697.

81. A.I.14, #295, Leibniz to Friedrich von Walter, Hanover, 14/24 September 1697.

82. A.I.14, #284, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 19 September 1697, 478.

83. A.I.14, #456, Johann Theodor Heinson to——(?) for Leibniz, Melle, 27 November / 7 December 1697.

84. A.I.14, #284, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 19 September 1697.

85. A.I.14, #325, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 2/12 October 1697, 556–57.

86. A.I.14, #430, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 16/26 November 1697, 737.

87. A.I.14, #321, Leibniz to August Hermann Francke, Hanover, 30 September / 10 October 1697, 546.

88. A.I.14, #321, Leibniz to August Hermann Francke, Hanover, 30 September / 10 October 1697, 545–46.

89. A.I.14, #322, Leibniz to Andreas Morell, Hanover, 1/11 October 1697.

90. A.I.14, #357, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 18 October 1697, 612.

91. A.I.14, #430, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 16/26 November 1697, 737.

92. A.I.14, #325, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 2/12 October 1697, 557.

93. A.I.14, #357, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 18 October 1697, 613.

94. A.I.14, #357, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 18 October 1697, 613.

95. A.I.14, #357, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 18 October 1697, 613.

96. A.I.14, #430, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 16/26 November 1697.

97. A.I.14, #284, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 19 September 1697, 477; A.I.14, #325, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 2/12 October 1697, 557; A.I.14, #357, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 18 October 1697, 614; A.I.14, #440, Leibniz to Kurfürstin Sophie Charlotte of Brandenburg, [Hanover, end of] November (beginning of December?) 1697, 771.

98. A.I.14, #430, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 16/26 November 1697.

99. A.I.14, #295, Leibniz to Friedrich von Walter, Hanover, 14/24 September 1697.

100. A.I.14, #295, Leibniz to Friedrich von Walter, Hanover, 14/24 September 1697; A.I.14, #324, Friedrich von Walter to Leibniz, Wolfenbüttel, 1/11 October 1697; A.I.14, #459, Leibniz for Friedrich von Walter, [Hanover], 28 November / 8 December 1697; A.I.14, #491, Friedrich von Walter to Leibniz, Aurich, 17/27 December 1697.

101. A.I.14, #440, Leibniz to Kurfürstin Sophie Charlotte of Brandenburg, [Hanover, end of] November (beginning of December?) 1697, 772.

102. A.I.14, #322, Leibniz to Andreas Morell, Hanover, 1/11 October 1697.

103. A.I.14, #322, Leibniz to Andreas Morell, Hanover, 1/11 October 1697.

104. A.I.14, #325, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 2/12 October 1697, 555.

105. A.I.14, #322, Leibniz to Andreas Morell, Hanover, 1/11 October 1697.

106. A.I.14, #325, Leibniz to Heinrich Wilhelm Ludolf, Hanover, 2/12 October 1697, 555.

Chapter 9 · The Jesuits of Paris and China (1689, November 1697–March 1698)

1. Gerbillon, "Second voyage," 239. For Gerbillon, see Thomaz de Brossierre, *Jean-François Gerbillon*. Other sources for the Treaty of Nerchinsk include Pereira, *Jesuits and the Sino-Russian Treaty*; Golovin's 1,261-page manuscript report of his embassy in Demidova and Miasnikov, *Russko-kitaiskie otnosheniia v XVII veke*, vol. 2; and Mancall, *Russia and China*. The most comprehensive examination of these sources is Kin'ichi, *Roshia no Tōhō shinshutsu to Neruchinsuku jōyaku*. For the most recent work in English, see Perdue, *China Marches West*; Perdue, "Boundaries and Trade in the Early Modern World"; and Perdue, "Jesuits at Nerchinsk."

2. Cahen, *Histoire des Relations*, 34n.

3. Tolbuzin is identified in Cahen, *Histoire des Relations*, 23.

4. Gerbillon, "Second voyage," 144; see the appendix for a translation of the the complete letter. Siege was laid at Yacsa on 10/20 August 1683. Cahen, *Histoire des Relations*, 23.

5. The letter was dated 7/17 September 1686. Cahen, *Histoire des Relations*, 24. See above, chapter 3.

6. Gerbillon, "Second voyage," 226.

7. Ivan Loginov was reportedly in Beijing 13–30 May 1689 (Julian calendar). See Pereira, *Jesuits and the Sino-Russian Treaty*, ch. 18. See also Golovin's manuscript report, pp. 928–29, in Demidova and Miasnikov, *Russko-kitaiskie otnosheniia v XVII veke*, 2:428.

8. Gerbillon, "Second voyage," 227–28.

9. Gerbillon, "Second voyage," 228, 229.

10. Gerbillon, "Second voyage," 229.

11. Cahen, *Histoire des Relations*, 35n4.

12. Gerbillon, "Second voyage," 229.

13. Cahen, *Histoire des Relations*, 28. Cf. Pereira, *Jesuits and the Sino-Russian Treaty*, 207.

14. Cahen, *Histoire des Relations*, 39–40. The instructions were sent from Moscow on 14/24 June 1687 and reached Golovin at Ulan Ude on 30 September / 10 October 1687. They are transcribed in Golovin's embassy report, Ms. pp. 246–52, in Demidova and Miasnikov, *Russko-kitaiskie otnosheniia v XVII veke*, 2:176–79.

15. Gerbillon, "Second voyage," 234.

16. Gerbillon, "Second voyage," 236.
17. Gerbillon, "Second voyage," 236.
18. Gerbillon, "Second voyage," 237.
19. Gerbillon, "Second voyage," 239.
20. Gerbillon, "Second voyage," 240.
21. Gerbillon, "Second voyage," 247.
22. Cahen, *Histoire des Relations*, cii, civ. The principal Golovin manuscripts were then catalogued in the Archive of the Ministry of Foreign Affairs as book 10; additional Golovin material was in books 9 and 13, and there were other manuscript reports in loose-leaf bundles and a notebook. Golovin's journals have been published in Demidova and Miasnikov, *Russko-kitaiskie otnosheniia v XVII veke*, vol. 2. But as Leibniz put it, "Utinam ego Slavonicam intelligerem, sed de eo despero hac aetate, et his occupationibus." A.I.9, #152, Leibniz to Adam Adamandus Kochanski, [Hanover, second half of January 1693], 268.
23. Cahen, *Histoire des Relations*, ciii, citing the Moscow Archive of the Ministry of Foreign Affairs, Court of China, bk. 7.
24. Cahen, *Histoire des Relations*, cvi; citing Moscow Archive of the Ministry of Foreign Affairs, Court of China, Book 15.
25. Tachard, *Voyage de Siam des Pères Jésuites*.
26. See Richard, "Louis Picques."
27. A.I.14, #358, Joachim Bouvet to Leibniz, Fontainebleau, 18 October 1697. See Collani, *Joachim Bouvet, S.J.*, 22–24, for Bouvet's embassy from China to France. Collani says that Leibniz's "letters exchanged with Joachim Bouvet constitute certainly the highlight of . . . Leibniz's correspondence with and about China." Collani, "Gottfried Wilhelm Leibniz and the China Mission," 93. But this exchange was fraught with failure. Between 1702 and 1707 Leibniz wrote five letters to Bouvet, one per year. Not one of them reached Bouvet. Similarly, Bouvet wrote to Leibniz and the Abbé Jean-Paul Bignon (1662–1743) on 15 September 1704, and although both copies of that letter did make it to Europe five years later, in 1709, neither reached its intended recipient. One is currently in the Archivum Romanum Societatis Iesu, the other at the Bibliothèque nationale de France. Collani, *Eine wissenschaftliche Akademie für China*.
28. A.I.14, #359, Antoine Verjus to Leibniz, Fontainebleau, 18 October 1697.
29. A.I.14, #399, Leibniz to Wilhelm Ernst Tentzel, Hanover, 5/15 November 1697.
30. A.I.14, #411, Leibniz to Hermann von der Hardt, Hanover, 9/19 November 1697.
31. A.I.14, #450, Adam Adamandus Kochanski to Leibniz for Joachim Bouvet.
32. A.I.14, #449, Adam Adamandus Kochanski to Leibniz, Teplitz, 4 December 1697. The Akademie Ausgabe editors identify the imperial envoy as Christoph Ignaz Edler von Guarient und Rall.
33. A.I.14, #470, Leibniz to Joachim Bouvet, Hanover, 2/12 December 1697, 833.
34. A.I.14, #358, Joachim Bouvet to Leibniz, Fontainebleau, 18 October 1697. For what Leibniz meant by *historia literaria*, see Carhart, "Historia Literaria."
35. A.I.14, #470, Leibniz to Joachim Bouvet, Hanover, 2/12 December 1697, 828.
36. A.I.14, #470, Leibniz to Joachim Bouvet, Hanover, 2/12 December 1697, 828.
37. A.I.14, #470, Leibniz to Joachim Bouvet, Hanover, 2/12 December 1697, 829.
38. A.I.14, #359, Antoine Verjus to Leibniz, Fontainebleau, 18 October 1697.
39. A.I.14, #470, Leibniz to Joachim Bouvet, Hanover, 2/12 December 1697, 829.
40. A.I.14, #344, Nicolaas Witsen to Leibniz, Amsterdam, 16 October 1697.
41. A.I.14, #470, Leibniz to Joachim Bouvet, Hanover, 2/12 December 1697, 829.
42. A.I.14, #357, Heinrich Wilhelm Ludolf to Leibniz, The Hague, 18 October 1697.
43. A.I.14, #470, Leibniz to Joachim Bouvet, Hanover, 2/12 December 1697, 829. The *Marah* discussion was reported in A.I.7, #295, Adam Adamandus Kochanski to Leibniz, Warsaw, 8/18 January 1692. See also above, chapter 3.

44. A.I.14, #470, Leibniz to Joachim Bouvet, Hanover, 2/12 December 1697, 830.

45. A.I.14, #470, Leibniz to Joachim Bouvet, Hanover, 2/12 December 1697, 832.

46. A.I.14, #472, Leibniz to Antoine Verjus, Hanover, 2/12 December 1697, 836–37.

47. A.I.14, #472, Leibniz to Antoine Verjus, Hanover, 2/12 December 1697, 838.

48. A.I.15, #145, Leibniz to Joachim Bouvet, [Hanover, mid-]January 1698.

49. A.I.15, #145, Leibniz to Joachim Bouvet, [Hanover, mid-]January 1698.

50. A.I.15, #175, Leibniz to Joachim Bouvet, Hanover, 30 January 1698.

51. See Leibniz, *Leibniz korrespondiert mit China*, 71n5.

52. A.I.14, #488, Leibniz to Kurfürstin Sophie Charlotte of Brandenburg, [Hanover], 14/24 (?) December 1697.

53. A.I.15, #175, Leibniz to Joachim Bouvet, Hanover, 30 January 1698.

54. A.I.15, #238, Joachim Bouvet to Leibniz, La Rochelle, 28 February 1698, 354–55.

55. A.I.15, #238, Joachim Bouvet to Leibniz, La Rochelle, 28 February 1698, 355–56. For the transmission of Bouvet's figurist theories to Europe through Leibniz, see Mungello, *Curious Land*, 312–28; for Andreas Müller's and then Christian Mentzel's *Clavis Sinica*, including specific discussions of Müller's correspondences with Kircher, Kochanski, and Leibniz on the topic, see Mungello, *Curious Land*, chs. 6 and 7. Perpetually short on funds because of his large family and his small stipend from the Great Elector, Müller would not part with his knowledge without first receiving a down payment (which would enable him to print his work), and he was to receive a second fee after the material had arrived. Regarding the missed meeting between Grimaldi and Müller, which Leibniz thought should have occurred at Breslau, according to Mungello, *Curious Land*, 234, Müller was not in fact at Breslau but had retired from Berlin to Stettin in 1685. Lach, "Chinese Studies of Andreas Müller," believed that Müller ended up imprisoned at Spandau as a result of a dispute with the Great Elector and some theological implication of his *Clavis Sinica*, but Mungello follows Kraft, "Frühe chinesische Studien in Berlin," which has him retiring to Stettin. The Müller Lach found at Spandau was the wrong one.

56. A.I.15, #238, Joachim Bouvet to Leibniz, La Rochelle, 28 February 1698, 355.

57. A.I.15, #366, Charles Le Gobien to Leibniz, Paris, 15 May 1698, 567; A.I.15, #367, Charles Le Gobien to Adam Adamandus Kochanski, Paris, 15 May 1698, 572. See also Froger, *Relation du premier voyage*.

58. A.I.18, #225, Charles Le Gobien to Leibniz, Paris, 18 February 1700.

Chapter 10 • The Foundations of Modern Historical Linguistics (1697–1716)

1. Schlözer, *Allgemeine Nordische Geschichte*, 288nT, quoted in Vermeulen, *Before Boas*, 496n40. For the precise genealogy of the idea of ethnography, see Vermeulen, *Before Boas*, 269–83.

2. Schlözer, *Allgemeine Nordische Geschichte*, 211nA.

3. Schlözer, *Probe Russischer Annalen*, 72n22, quoted in Vermeulen, *Before Boas*, 494n35.

4. Schlözer, *Allgemeine Nordische Geschichte*, 288nU, quoted in Vermeulen, *Before Boas*, 496n41.

5. Marchand, *German Orientalism*.

6. Schlözer, *Allgemeine Nordische Geschichte*, 288nT, quoted in Vermeulen, *Before Boas*, 495n40.

7. Schlözer, *Allgemeine Nordische Geschichte*, 211nA, quoted in Vermeulen, *Before Boas*, 495n36. For others crediting Leibniz with establishing linguistic methods in ethnology, see Van Hal, "Sprachen, die Geschichte Schreiben."

8. Vermeulen, "Linguistik und Völkerkunde," citing Strahlenberg, *Das Nord- und Ostliche Theil von Europa und Asien*; and Müller, "Istorii akademii nauk, 1725–1743."

9. Leibniz, *Origines Guelficae*, vols. 1–4, ed. Scheidt. The two preliminary dissertations—*Protogaea*, ed. Scheidt (1749); and Eckhart, *De origine germanorum*, ed. Scheidt (1750)—are usu-

ally catalogued separately from the rest of Scheidt's edition. In the preface to his edition of Leibniz's *Annales Imperii Occidentis Brunsvicenses*, which appears in ser. 1, vol. 1, of *Leibnizens gesammelte Werke*, Georg Heinrich Pertz explained (on pp. xxvi–xxxiii) that Scheidt's edition was interrupted by the Seven Years' War and that before the war ended Scheidt passed away. A fifth volume appeared as Leibniz et al., *Origines Guelphicae*, ed. J. H. Jung (1780). Pertz, who excised Eckhart's revisions and restored the work to the way Leibniz had left it at his death, did not include the two preliminary dissertations.

10. Ludolf and Leibniz, *Iobi Ludolfi et Godofredi Guilielmi Leibnitii Commercium Epistolicum*. This 1755 edition, by Michaelis, was the basis of Waterman's *Leibniz and Ludolf on Things Linguistic*.

11. Leibniz, *Nouveaux essais sur l'entendement humain*, in *Oeuvres philosophiques*, ed. Raspe (1765), 1–496.

12. Dutens, *Memoirs of a Traveller Now in Retirement*, 2:79–80.

13. See Leibniz, "Disquisitio de origine Francorum," in *Opera Omnia*, 4, pt. 2: 146–66; Leibniz, "Brevis designatio meditationum de originibus gentium ductis potissimum ex indicio linguarum," in *Opera Omnia*, 4, pt. 2: 186–97; Leibniz, "Dissertatio de origine Germanorum, seu brevis disquisitio, utros incolarum Germaniae citerioris, aut Scandicae ex alteris initio profectos verisimilius sit judicandum," in *Opera Omnia*, 4, pt. 2: 198–204; and, for Paul Pezron, Leibniz, "Lettre à M. Nicaise, sur l'origine des Germains," in *Opera Omnia*, 4, pt. 2: 205–6, plus the section "Celtica" in *Opera Omnia*, 6, pt. 2: 79–88.

14. A.I.14, #137, J. G. Sparwenfeld to Leibniz, Stockholm, 20/30 May 1697.

15. See Matthee, "Ludvig Fabritius." See also Troebst, "Die Kaspi-Volga-Ostsee Route"; and Fabritius, "Kurze Relation von meine Drei gethane Reisen." Fabritius's first mission on behalf of Sweden (1679–80) was intended to open a trade route for Armenian merchants between Persia and Sweden by way of the port of Narva on the Gulf of Finland. His second mission (1683–84) was an attempt to bring Persia into the Holy League against the Ottoman Empire; Persia declined, but Armenian silk merchants accompanied Fabritius back to Stockholm. In the 1690s an Armenian merchant company attempted to establish a commercial route through Poland. This would have been the route of the Armenian merchant whom Sparwenfeld interviewed in Stockholm in the winter of 1698. Fabritius's third mission (1697–1700) sought reciprocal privileges for Swedish merchants in Persia similar to the privileges Armenian and Persian merchants enjoyed at Narva.

16. Leibniz, "Brevis disquisitio utros incolarum Germaniae citerioris aut Scandicae ex alteris initio profectos verisimilius sit judicandum," in *Opera Omnia*, 4, pt. 2: 198–205; critical edition in Leibniz, *Schriften und Briefe zur Geschichte*, no. 36, pp. 585–617.

17. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 588, para. 5.

18. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 588, para. 5.

19. Hickes, *Linguarum veterum septentrionalium thesaurus*. Leibniz stated essentially the same thing both in *Nouveaux essais sur l'entendement humain*, in *Oeuvres philosophiques*, 243, naming as linguistic authorities only Schilter and Meier); and in "Brevis designatio" (1710, where he added also Hickes).

20. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 588, para. 3; see also 592–94. Rudbeckius, *Atlantica, sive Manheim*, vol. 1, ch. 7, sec. 5, para. 52.

21. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 594–96, paras. 12–18.

22. Leibniz seems to have invented this association himself. In "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 596, para. 19, he claimed that these were the river names "ut Jordani Gotho appellantur," but I have not found any reference by Jordanes to either the Tanais (Latin) or the Don (English).

23. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 598, para. 19; see also the accompanying editorial notes.

24. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 600–602, paras. 24–25.

25. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 602, para. 26.

26. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 602, para. 27.

27. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 602, para. 27.

28. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 588, para. 2.

29. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 604, para. 30. He defined *Goropize* in *Nouveaux essais sur l'entendement humain*, bk. 3, ch. 2, in *Oeuvres philosophiques*.

30. Leibniz, "Brevis disquisitio" (1697), in *Schriften und Briefe zur Geschichte*, 596, para. 17, for both quotations.

31. Leibniz, "Brevis designatio" (1710), 9; critical edition in *Schriften und Briefe zur Geschichte*, no. 18, 354–89. In 374n79 the editors point out that Jordanes, writing in the sixth century and prior to the Magyar occupation of Pannonia, said nothing of the sort regarding the Hungarians; however, Leibniz repeated this claim almost verbatim in both his essays of 1697 and of 1710. Leibniz cannot be confusing the Huns with the Hungarians, because he considered the Huns to be a Sarmatian people, not Finnish.

32. A.I.21, #192, Ludvig Fabritius for Leibniz, Stockholm, 13/23 May 1702.

33. Leibniz, "Brevis designatio" (1710), 9; in *Schriften und Briefe zur Geschichte*, 374.

34. Pausanias is mentioned by name in Leibniz's text, but Leibniz's sources were a "Glossarium Prisco-Gallicum," in *Itinerarium Galliae Narbonensis*, by Johannes Isaacus Pontanus (1606); and Camden, *Remaines of a greater worke* (1605). He first mentioned the Celto-Germanic cognate in A.I.7, #347, Leibniz to Adam Adamandus Kochanski, [Wolfenbüttel?], 11/21 March 1692. For the Pausanias locus, see Leibniz, *Schriften und Briefe zur Geschichte*, 360n16. See also A.I.13, #368, Leibniz to Ezechiel Spanheim, Hanover, 24 February / 6 March 1697; A.II.3, #114, Leibniz to Claude Nicaise, Hanover, 30 April / 10 May 1697; and A.II.3, #137, Leibniz to Claude Nicaise, [Hanover], 9/19 August 1697.

35. Leibniz, "Brevis designatio" (1710): 3; in *Schriften und Briefe zur Geschichte*, 360.

36. Leibniz, "Brevis designatio" (1710): 3; in *Schriften und Briefe zur Geschichte*, 360 and 361n20.

37. Richter, *Leibniz und sein Russlandbild*, appendix; reproduced most recently in Vermeulen, *Before Boas*, 65.

38. Leibniz, "Brevis designatio" (1710), 6–9.

39. Schlözer, *Allgemeine Nordische Geschichte*, 288nT; cited after Vermeulen, *Before Boas*, 496n40.

40. Carhart, *Science of Culture in Enlightenment Germany*.

41. Carhart, "Polynesia and Polygenism."

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